

Federal Operating Permit Chapter 80, Article 1

This permit is based upon Federal Clean Air Act, federal operating permit requirements of Title V; and Chapter 80, Article 1 and Chapter 140 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, 9 VAC 5-80-50 through 9 VAC 5-80-300, and 9 VAC 5-140-10 through 9 VAC 5-140-900 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	International Paper - Franklin Mill
Facility Name:	International Paper - Franklin Mill
Facility Location:	34040 Union Camp Drive Franklin, Virginia 23851
Registration Number:	TRO 60214

April 1, 2006
Effective Date

November 25, 2007
Expiration Date

March 31, 2006
Signature Date

(for)
David K. Paylor
Director, Department of Environmental Quality

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I. Facility Information

Permittee

International Paper Franklin Virginia Mill
34040 Union Camp Drive
Franklin, VA 23851

Responsible Official

Mr. John W. Rankin
Mill Manager

NO_x Budget Trading Authorized Account Representative

Mr. John W. Rankin
Mill Manager

NO_x Budget Trading Alternate Authorized Account Representative

Sheryl Raulston
Environmental Affairs Manager

Facility

International Paper Franklin Virginia Mill
34040 Union Camp Drive
Franklin, VA 23851

Contact Person

Sheryl Raulston
Environmental Affairs Manager
(757) 569-4558

AFS Identification Number: 51-093-00006

ORIS Code and/or EIA Facility ID: 52152

Facility Description: SIC Codes: 2621 Paper Mill; 2611 – Pulp Mill; 2631 – Paperboard Mill; 2679 – Converted Paper and Paperboard Products

This facility produces finished paper and paperboard products, virgin and recycled pulp and recycled paper products from logs and chips using the Kraft process. They also produce turpentine. The mill has the capability of generating most of the power used at this mill.

There are 10 major parts of this facility as listed in the application: 1) The Wood Yard process area; 2) the Unbleached Pulp process area; 3) Caustic Recovery process area; 4) Chemical Recovery process area; 5) The Bleach Plant area; 6) the Paper Mill area; 7) the Power House area; 8) the Waste Water Treatment area; 9) the Recycled Fiber process area; 10) Miscellaneous processes, including a sheet plant.

This facility will be complying with 40 CFR Part 63, Subpart S in a site-specific manner. This permit is the Equivalency Permit which was granted to the Department of Environmental Quality by EPA. On April 15, 2004, EPA published in the Federal Register an approval of an EBP (Equivalency By Permit) for the Virginia

DEQ. This approval allows the Virginia DEQ to establish and enforce alternative state requirements for International Paper Franklin Mill in lieu of those in the Pulp and Paper MACT (40 CFR Part 63, Subpart S). The approval requires that the alternative requirements must be at least as stringent as the MACT.

This facility has proposed to comply with 40 CFR 63.443 (a)(1) by controlling the HAP emissions from the following equipment systems:

- A. Each LVHC system
- B. Each knotter or screen system with total HAP mass emission rates greater than or equal to the rates specified in §63.443(a)(1)(ii)(A) or (a)(1)(ii)(B) or the combined rate specified in §63.443 (a)(1)(ii)(C)
- C. D-Wash Line Washer and Accepts Tank
- D. B-Decker and Filtrate Tank
- E. No. 1 High Density Storage Tank
- F. Nos. 1-4 BLOX Tank Vents
- G. E-Bleach Line O₂—1 Washers and Filtrate Tank
- H. E-Bleach Line O₂—2 Washers and Filtrate Tank
- I. E-Bleach Line East and West Twin Roll Press
- J. E-Bleach Line O₂ System Blow Tank, Blend Chest, and Pressate Level Tank

Note:

- a. emissions from the mill's knotter and screen systems are not required to be collected and controlled. These systems have been found to have HAP concentrations below the thresholds specified in §63.443(a)(1)(ii).
- b. emissions from the E-decker are not required to be controlled since the HAP (as MeOH) content of the shower water used on this system was found to be less than the threshold specified in §63.443(a)(1)(iv)(B).
- c. emissions from the following systems (as defined in Appendix A) will not be collected and controlled under International Paper's alternative 40 CFR 63.443 compliance approach:
 - (1) A & B Washer systems
 - (2) C Washer system
 - (3) D-Wash Line seal tank
 - (4) Vertical Foam Tank
 - (5) Knotters and Screens
 - (6) E-Bleach Line oxygen delignification system O₂ reactor purge vent and pressate hold tank
 - (7) F-Bleach Line Oxygen Delignification System

The HAP emissions reduction shall be no less than the amount required by the MACT as written.

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled
Wood Yard Process Area						
WDY01	N/A	Traffic – Log Hauling (paved road)	75,000 mi./yr.	-	-	-
WDY02	N/A	Traffic – Chip Hauling (paved road)	50,000 mi./yr.	-	-	-
WDY06	N/A	Slashing Process	2,000,000 tons/yr	-	-	-
WDY08	N/A	Debarking/Chipping	2,500,000 tons/yr	-	-	-
WDY14	N/A	Wind Erosion – Fuel Chip Pile (Sawdust)	N/A	-	-	-
WDY16	N/A	Screening/Rechipping	4,000,000 tons/yr	-	-	-
Unbleached Pulp Mill						
UPM01 ⁽²⁾	PWRSV01, PWRSV02	Digester System	57.9 ADT/hr.	NCG Incineration System	PWR02, 03	TRS, VOC
	-	Batch Digesters 1-12	-	NCG Incineration System	PWR02, 03	TRS, VOC
	-	Blow Tanks A, B, C	-	NCG Incineration System	PWR02, 03	TRS, VOC
UPM27 ⁽²⁾	UPMSV01	Blow Heat Accumulator	-	NCG Incineration System	PWR02, 03	TRS, VOC
UPM02 ⁽²⁾	PWRSV01, PWRSV02	Continuous Digester System	(See below)	NCG Incineration System	PWR02, 03	TRS, VOC
	-	K1 Digester	45.8 ADT/hr.	NCG Incineration System	PWR02, 03	TRS, VOC
	-	K2 Digester	30.4 ADT/hr	NCG Incineration System	PWR02, 03	TRS, VOC
UPM28 ⁽²⁾	-	D Blow Tank	-	NCG Incineration System	PWR02, 03	TRS, VOC
UPM03	UPMSV03	A Wash Line	27 ADT/hr.	-	-	-
	-	A1 Washer	-	-	-	-
	-	A2 Washer	-	-	-	-
	-	A3 Washer	-	-	-	-
	-	A1 Filtrate Tank	-	-	-	-
	-	A2 Filtrate Tank	-	-	-	-
	-	A3 Filtrate Tank	-	-	-	-
UPM04	UPMSV04	B Wash Line	22.9 ADT/hr.	-	-	-
	-	B1 Washer	-	-	-	-
	-	B2 Washer	-	-	-	-
	-	B3 Washer	-	-	-	-
	-	B1 Filtrate Tank	-	-	-	-
	-	B2 Filtrate Tank	-	-	-	-
	-	B3 Filtrate Tank	-	-	-	-
UPM05	UPMSV05	C Wash Line	31.2 ADT/hr.	-	-	-
	-	C1 Washer	-	-	-	-
	-	C2 Washer	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled
	-	C3 Washer	-	-	-	-
	-	C1 Filtrate Tank	-	-	-	-
	-	C2 Filtrate Tank	-	-	-	-
	-	C3 Filtrate TankA2 Washer	-	-	-	-
UPM06 ⁽²⁾	UPMSV06	D Wash Line	50 ADT/hr.	-	-	-
	-	D Seal Tank	-	-	-	-
UPM07	UPMSV07	A Noss Screens	27 ADT/hr.	-	-	-
UPM08	UPMSV08	B Noss Screens	22.9 ADT/hr.	-	-	-
UPM09	UPMSV09	C Screens	31.2 ADT/hr.	-	-	-
	-	Primary Screens	-	-	-	-
	-	Secondary Screens	-	-	-	-
UPM10	UPMSV10	D Screens	50 ADT/hr.	-	-	-
	-	Primary Screens	-	-	-	-
	-	Secondary Screens	-	-	-	-
	-	Tertiary Screens	-	-	-	-
UPM11 ⁽²⁾	UPMSV11	B Decker	50 ADT/hr.	-	-	-
	-	B Decker Filtrate Tank	-	-	-	-
UPM12	UPMSV12	D Decker	46.9 ADT/hr.	-	-	-
	-	D Decker Filtrate Tank	-	-	-	-
UPM13	UPMSV13	E Decker	53.1 ADT/hr.	-	-	-
	-	E Decker Filtrate Tank	-	-	-	-
UPM14	UPMSV14	A Knotter	27 ADT/hr.	-	-	-
UPM15	UPMSV15	B Knotter	22.9 ADT/hr.	-	-	-
UPM16	UPMSV16	C Knotter	46.9 ADT/hr.	-	-	-
UPM17	UPMSV17	D Knotter	53.1 ADT/hr.	-	-	-
UPM18	UPMSV18	#7 Low Density Storage Tank	8,760 hr/yr.	-	-	-
UPM19 ⁽²⁾	PWRSV01, PWRSV02	K1 & K2 Chip Bin Vents	-	NCG Incineration System	PWR02, 03	TRS, VOC
UPM20 ⁽²⁾	PWRSV01, PWRSV02	Turpentine System	180 gal/hr.	NCG Incineration System	PWR02, 03	TRS, VOC
	-	No.1 Storage Tank	-	NCG Incineration System	PWR02, 03	TRS, VOC
	-	Decanter	-	NCG Incineration System	PWR02, 03	TRS, VOC
	-	Decanter Underflow Tank	-	NCG Incineration System	PWR02, 03	TRS, VOC
	-	No.2 Storage Tank	-	NCG Incineration System	PWR02, 03	TRS, VOC
	-	Padding Water Collection Tank	-	NCG Incineration System	PWR02, 03	TRS, VOC
UPM21	UPMSV19	Multiple Foam Tanks	8,760 hr/yr.			
UPM30 ⁽²⁾	-	BOD Tank	8,760 hr/yr	NCG Incineration System	PWR02, 03	TRS, VOC
Caustic Recovery Process Area						
CAU01 ⁽³⁾	CAUSV01	No. 2 Lime Kiln	7.3 tons CaO/hr	Lime Kiln Scrubber	CAUCD01	PM/PM10
CAU02 ⁽³⁾	CAUSV02	No. 3 Lime Kiln	13.0 tons CaO/hr	Lime Kiln Scrubber	CAUCD02	PM/PM10
CAU03 ⁽³⁾	CAUSV03	No. 4 Lime Kiln	15.0 tons CaO/hr	Lime Kiln Scrubber	CAUCD03	PM/PM10

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled
CAU04	CAUSV04	No. 5 Slaker	69.1 ADTP/hr	Slaker Scrubber	CAUCD04	PM/PM10
CAU05	CAUSV05	No. 6 Slaker	69.1 ADTP/hr	Slaker Scrubber	CAUCD05	PM/PM10
CAU06	CAUSV06	Green Liquor Handling	310,250 tons CaO/yr	-	-	-
	-	Green Liquor Surge Tank	-	-	-	-
	-	Green Liquor Spill Tank	-	-	-	-
	-	Green Liquor Clarifiers (3)	-	-	-	-
	-	No. 3 White Liquor Clarifier ** ** (used as "swing" clarifier. White or Green liquor)	-	-	-	-
	-	Green Liquor Standpipe	-	-	-	-
	-	Green Liquor Day Tank	-	-	-	-
	-	Dregs Filter Mix Tanks	-	-	-	-
	-	Dregs Filter Hoods	-	-	-	-
	-	Dregs Filter Vacuum Pumps	-	-	-	-
	-	Dregs Filter Dump Tank	-	-	-	-
	-	Reserve Tank used for GL storage	-	-	-	-
CAU07	CAUSV07	White Liquor Handling	310,250 tons CaO/yr	-	-	-
	-	Grits Mix Tank	-	-	-	-
	-	Grits Washers (2)	-	-	-	-
	-	Grits Washwater Return Standpipe	-	-	-	-
	-	Causticizers (8)	-	-	-	-
	-	Causticizer Standpipe	-	-	-	-
	-	White Liquor Clarifiers (4)	-	-	-	-
	-	White Liquor Standpipes (2)	-	-	-	-
	-	White Liquor Day Tank	-	-	-	-
CAU08	CAUSV08	Lime Mud Handling	310,250 tons CaO/yr	-	-	-
	-	Unwashed Mud Mix Tank	-	-	-	-
	-	Lime Mud Pressure Filter Feed Tanks (2)	-	-	-	-
	-	Lime Mud Pressure Filters (2)	-	-	-	-
	-	Mud Washer	-	-	-	-
	-	Washed Mud Mix Tank	-	-	-	-
	-	Lime Mud Storage Tanks (4)	-	-	-	-
	-	Dewatering Aid Tank	-	-	-	-
	-	Precoat Filter Vacuum Pumps (3)	-	-	-	-
CAU09	N/A	Lime Handling	310,250 tons CaO/yr	-	-	-
	-	Lime Collection Conveyors (2)	-	-	-	-
	-	Lime Bucket Elevators (2)	-	-	-	-
	-	Hot Lime Storage Bins (2)	-	-	-	-
	-	Fresh Lime Storage Bin	-	-	-	-
	-	Purchased Lime Unloading Screw Conveyor	-	-	-	-
		Purchased Lime Transfer Conveyor	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled
	-	Purchased Lime Bucket Elevator	-	-	-	-
CAU10	CAUSV10	Fillback Storage	310,250 tons CaO/yr	-	-	-
	-	Fillback Tank	-	-	-	-
	-	Fillback Standpipe	-	-	-	-
CAU11	N/A	No. 2 Lime Kiln Mud Precoat Filter	7.3 tons CaO/hr	-	-	-
CAU12	N/A	No. 3 Lime Kiln Mud Precoat Filter	13.0 tons CaO/hr	-	-	-
CAU13	N/A	No. 4 Lime Kiln Mud Precoat Filter	15.0 tons CaO/hr	-	-	-
Chemical Recovery Process Area						
CRE01 ⁽³⁾	CRESV01A, CRESV01B	No. 4 Recovery Furnace	96,800 lb/hr BLS	No. 4 ESP	CRECD01	PM/PM10
		4 RF saltcake mix tank	-	No. 4 ESP	CRECD01-	PM/PM10
CRE02 ⁽³⁾	CRESV02A, CRESV02B	No. 5 Recovery Furnace	96,800 lb/hr BLS	No. 5 ESP	CRECD02	PM/PM10
		5 RF precipitator mix tank	-	No. 5 ESP	CRECD02	PM/PM10
		5 RF saltcake mix tank	-	No. 5 ESP	CRECD02	PM/PM10-
CRE03 ⁽³⁾	CRESV03A, CRESV03B	No. 6 Recovery Furnace	190,000 lb/hr BLS	No. 6 ESP	CRECD03	PM/PM10
		6 RF precipitator mix tank	-	No. 6 ESP	CRECD03	PM/PM10-
CRE04 ⁽³⁾	CRESV04	No. 4 Rec. Smelt Dissolving Tank	22.5 tons/hr GLS	Scrubber	CRECD04	PM10/TRS
CRE05 ⁽³⁾	CRESV05	No. 5 Rec. Smelt Dissolving Tank	22.5 tons/hr GLS	Scrubber	CRECD05	PM10/TRS
CRE06 ⁽³⁾	CRESV06A, CRESV06B	No. 6 Rec. Smelt Dissolving Tank	44 tons/hr GLS	Scrubber	CRECD06A, CRECD06B	PM10/TRS
		6 RF saltcake mix tank	-	Scrubber	CRECD06A	PM10/TRS
CRE07 ⁽²⁾	PWRSV01, PWRSV02	D Set Evaporators	1,500 gpm WBL	NCG Incineration System	PWR02, 03	TRS, VOC
CRE08 ⁽²⁾	PWRSV01, PWRSV02	E Set Evaporators	1,500 gpm WBL	NCG Incineration System	PWR02, 03	TRS, VOC
CRE09 ⁽²⁾	PWRSV01, PWRSV02	F Set Evaporators	450gpm WBL 750gpm IBL	NCG Incineration System	PWR02, 03	TRS, VOC
CRE10 ⁽²⁾	PWRSV01, PWRSV02	G Set Evaporators	774,500lb/hr evap	NCG Incineration System	PWR02, 03	TRS, VOC
CRE11	CRESV07	Weak Black Liquor Storage	8,760 hrs.	-	-	-
		#1 Weak Black Liquor Tank	-	-	-	-
		#2 Dump tank	-	-	-	-
		#2 Weak black liquor tank	-	-	-	-
		#3 Weak black liquor tank	-	-	-	-
		#1 Dump tank	-	-	-	-
CRE12	CRESV08	Intermediate Black Liquor Storage	8,760 hrs	-	-	-
		BLOX foam tank	-	-	-	-
		#1 Reserve tank	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled
		#2 Reserve tank	-	-	-	-
		#4 Reserve tank	-	-	-	-
		#3 Heavy Black liquor tank	-	-	-	-
CRE13	CRESV09	Heavy Black Liquor Storage	8,760 hrs	-	-	-
		64% black liquor tank	-	-	-	-
CRE15		Stripper Feed Tank Venting				
CRE16 ⁽²⁾	PWRSV01, PWRSV02	Condensate Stripper System	1,140 gpm	NCG Incineration System	PWR02, 03	TRS, VOC
		Stripper Feed Tank	8,760 hrs	NCG Incineration System	PWR02, 03	TRS, VOC
CRE17 ⁽²⁾		BLOX System Tanks (4)	8,760 hrs	HVLC Incineration System	PWR02, 03	VOC, HAPs
Bleach Plant Process Area						
BLP01 ⁽²⁾	BLPSV01	D Bleach Line	33.8 ODTP/hr	Scrubber	BLPCD01	chlorine
		Washer Hoods	-	Scrubber	BLPCD01	chlorine
		D1 Tower	-	Scrubber	BLPCD01	chlorine
		D2 Tower	-	Scrubber	BLPCD01	chlorine
		DD1 Seal Tank	-	Scrubber	BLPCD01	chlorine
		DD2 Seal Tank	-	Scrubber	BLPCD01	chlorine
		E1 & E2 Seal Tanks	-	Scrubber	BLPCD01	chlorine
BLP02 ⁽²⁾		CO Seal Box	-	Scrubber	BLPCD01	chlorine
	BLPSV02	E Bleach Line	41.3 ODTP/hr	Scrubber	BLPCD02	chlorine
		Washer Hoods	-	Scrubber	BLPCD02	chlorine
		D Tower	-	Scrubber	BLPCD02	chlorine
		D Seal Tank	-	Scrubber	BLPCD02	chlorine
		DO Seal Tank	-	Scrubber	BLPCD02	chlorine
		E Seal Tank	-	Scrubber	BLPCD02	chlorine
		E Tower	-	Scrubber	BLPCD02	chlorine
BLP03 ⁽²⁾		DO Tower	-	Scrubber	BLPCD02	chlorine
		DO Blend Chest	-	Scrubber	BLPCD01	chlorine
	BLPSV03	F Bleach Line	37.5 ODTP/hr	Scrubber	BLPCD03	chlorine
		Acid presses		Scrubber	BLPCD03	chlorine
		Washer Hoods		Scrubber	BLPCD03	chlorine
		Acid Stock Post O2 Surge Tank		Scrubber	BLPCD03	chlorine
		D Tower		Scrubber	BLPCD03	chlorine
		D Seal Tank		Scrubber	BLPCD03	chlorine
		E Seal Tank		Scrubber	BLPCD03	chlorine
		Z Tower		Scrubber	BLPCD03	chlorine
		Z Seal Tank		Scrubber	BLPCD03	chlorine
		#1 & #2 Composition Separator		Scrubber	BLPCD03	chlorine
BLP04 ⁽²⁾		#1-5 Ozone Generator		Scrubber	BLPCD03	chlorine
		Oxygen Gas Cooler	-	Scrubber	BLPCD03	chlorine
	BLPSV04	E Bleach O₂ Delignification	41.3 ODTP/hr	HVLC Incineration System	PWR-02, -03	VOC, HAPs
		O ₂ Blend Chest		HVLC Incineration System	PWR-02, -03	VOC, HAPs

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled
		O ₂ -1 Washers and Filtrate Tank		HVLC Incineration System	PWR-02, -03	VOC, HAPs
		O ₂ -2 Washers and Filtrate Tank		HVLC Incineration System	PWR-02, -03	VOC, HAPs
		O ₂ Pressate Level Tank		HVLC Incineration System	PWR-02, -03	VOC, HAPs
		O ₂ System Blow Tank		HVLC Incineration System	PWR-02, -03	VOC, HAPs
		East and West Twin Roll Press		HVLC Incineration System	PWR-02, -03	VOC, HAPs
		Hold Tank		HVLC Incineration System	PWR-02, -03	VOC, HAPs
BLP05	BLPSV05	F Bleach O₂ Delignification	37.5 ODTP/hr	-	-	-
BLP06	BLPSV06	High Density Storage Tanks	8,760 hr/yr	-	-	-
		#1 Hi density chest		-	-	-
		#2 Hi density chest		-	-	-
		#3 Hi density chest		-	-	-
		#4 Hi density chest		-	-	-
		#40 Hi density chest		-	-	-
BLP07	BLPSV07	Stock Chests	8,760 hr/yr	-	-	-
		#38 Stock chest		-	-	-
		#39 Stock chest		-	-	-
		#41 Stock chest		-	-	-
		#43 Stock chest		-	-	-
		#38 Stock chest		-	-	-
BLP08		#44 Stock chest		-	-	-
	BLPSV08	SVP Plant	1.5 tons/hr	-	-	-
		Tailgas scrubber	-	-	-	-
BLP09		Condenser	-	-	-	-
	BLPSV09	R3 Plant	1.67 tons/hr	-	-	-
		2 pipe vents	-	-	-	-
		2 storage tanks	-	-	-	-
Paper Machine Process Area						
PRM01	PRMSV01	No. 1 Paper Machine	49.3 tons/hr	-	-	-
		Secondary Screen Feed Tank (2)	-	-	-	-
		Vents (3)	-	-	-	-
		Ceiling Vents (9)	-	-	-	-
		Air Knife Coater Vent	-	-	-	-
		Coater Section Hoods (4)	-	-	-	-
PRM02	PRMSV02	No. 2 Paper Machine	12.5 tons/hr	-	-	-
PRM03	PRMSV03	No. 3 Paper Machine	28.6 tons/hr	-	-	-
		No. 3 PM Vacuum Pump Exhaust	-	-	-	-
PRM04	PRMSV04	No. 4 Paper Machine	35.4 tons/hr	-	-	-
		Fourdrinier vents (2)	-	-	-	-
PRM05	PRMSV05	No. 5 Paper Machine	25.8 tons/hr	-	-	-
PRM06	PRMSV06	No. 6 Paper Machine	45.8 tons/hr	-	-	-
		No. 6 PM Vacuum Pump Exhaust (2)	-	-	-	-
PRM07	PRMSV07	100 Ton Broke Chest	8,760 hr/yr	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled
PRM09	PRMSV09	No. 1 Wet End Starch silo	8,760 hr/yr	Fabric filter	-	PM/PM10
PRM10	PRMSV10	No. 2 Wet End Starch silo	8,760 hr/yr	Fabric filter	-	PM/PM10
PRM11	PRMSV11	Bleached Stock LD Storage	8,760 hr/yr	-	-	-
Power House Process Area						
PWR01	PWRSV01	No. 5 Power Boiler	193 MMBTU/hr	Mech. Dust Collector, ESP	PWRCD06/01	PM10
PWR02	PWRSV01	No. 6 Power Boiler	496 MMBTU/hr	Mech. Dust Collector, ESP	PWRCD07/01	PM10
PWR03	PWRSV02	No. 7 Power Boiler	543 MMBTU/hr	Mech. Dust Collector, ESP	PWRCD08/02	PM10
PWR05	PWRSV03	No. 9 Power Boiler	893 MMBTU/hr	Catalyst	PWRCD04/05	CO, VOC, NO _x
PWR10		No. 910 Fuel Oil Tank	-			
PWR12		NCG System Venting at Nos. 6 & 7 Power Boilers				
Wastewater Treatment System						
WWT01	WWTSV01	Primary Clarification/Sludge Handling	93 million gal/day	-	-	-
WWT02	-	Aerated Stabilization Basin	93 million gal/day	-	-	-
WWT03	-	C Pond	11 billion gallons (total volume)	-	-	-
Miscellaneous Process Area						
MIS01	-	Paved Roads	-	-	-	-
MIS02	-	Unpaved roads	-	-	-	-
MIS03	-	Refrigeration systems	-	-	-	-
MIS04	MISSV01	Waste Paper Baler	3.3 tons/hr	cyclone	MISCD04	PM, PM10
MIS08		Regenerative Thermal Oxidizer (RTO)				
MIS09		Multiple No. 2 Fuel Oil Combustion Emission Units	various			

- (1) The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.
- (2) Units are subject to the MACT Subpart S - 40 CFR Part 63, Subpart S
- (3) Units are subject to the MACT Subpart MM - 40 CFR Part 63, Subpart MM

III. Definitions

“ADTP” means Air Dried Tons of Pulp.

“Base Case” means the HVLC requirements of 40 CFR Subpart S as written.

“BHA” means Blow Heat Accumulators.

“BLOX” means Black Liquor Oxidation Tanks.

“BOD” means Biological Oxygen Demand.

“CaO” means quicklime.

“CEMS” means Continuous Emission Monitoring System.

“CMS” means Continuous Monitoring System.

“CPMS” means Continuous Parameter Monitoring System.

“CO” means Carbon Monoxide.

“Department” means the Department of Environmental Quality, an agency of the Commonwealth described in §10.1-1183 of the Code of Virginia.

"Emission caps" means the site-wide limitations on the rate of emissions of an air pollutant established and identified as emission caps in 9 VAC 5-230-40 A. This limitation on the annual emissions of a pollutant, expressed in tons per year, is derived from emissions factors and site-specific quantification methods believed to be accurate at the time of original establishment of the caps. Emissions attributed to the emission caps shall include fugitive emissions to the extent quantifiable, and emissions resulting from startup, shutdown and malfunction conditions.

“EPA” means the United States Environmental Protection Agency.

“Facility” means the Kraft Paper Mill located on the contiguous property at 34040 Union Camp Drive, Franklin, Virginia, under common control by International Paper Company, and its successors in ownership.

“FESOP” means Federally Enforceable State Operating Permit.

“Force Majeure” is defined as an event that no human foresight could anticipate, such as natural disaster, hurricane, earthquake, flood, war or other such occurrences. Circumstances must be abnormal and unforeseeable, so that the consequences could not have been avoided through the exercise of all due diligence.

“HAP” means Hazardous Air Pollutant.

“H₂SO₄” means Sulfuric Acid Mist.

“HVLC” means High Volume Low Concentration.

“International Paper” refers to International Paper Company, a New York corporation authorized to conduct business in Virginia and the owner/operator of a Kraft Paper Mill located at 34040 Union Camp Drive, in Franklin, Virginia.

“LD” means Low Density.

“LVHC” means Low Volume High Concentration. The points of collection are listed in [Appendix B](#).

“MACT” means Maximum Achievable Control Technology.

"Major new source review (major NSR) program" means a program for the preconstruction review and permitting of new major stationary sources or major modifications (physical changes or changes in the method of operation) which are subject to review in accordance with Article 8 (9 VAC 5-80-1605 et seq.) or Article 9 (9 VAC 5-80-2000 et seq.) of Part II of 9 VAC 5 Chapter 80.

“MeOH” means Methanol.

"Minor new source review (minor NSR) program" means a program for the preconstruction review and permitting of new stationary sources or modifications (physical changes or changes in the method of operation) which are subject to review in accordance with Article 6 (9 VAC 5-80-1100 et seq.) of Part II of 9 VAC 5 Chapter 80 and which do not qualify as new major stationary sources or major modifications under the major NSR program.

"Modification" means the definition of modification in the applicable new source review program, provided the emissions unit or process is not subject to a NESHAP.

“NCASI” means National Council for Air and Stream Improvement, Inc.

“NCG” means Non Condensable Gas.

"New source review (NSR) program" means a program for the preconstruction review and permitting of new stationary sources or modifications (physical changes or changes in the method of operation) which are subject to review in accordance with Article 6 (9 VAC 5-80-1100 et seq.), Article 8 (9 VAC 5-80-1605 et seq.) or Article 9 (9 VAC 5-80-2000 et seq.) of Part II of 9 VAC 5 Chapter 80.

“NESHAP” means a reference to the National Emission Standards for Hazardous Air Pollutants as codified in 40 CFR Part 61 or Part 63.

“NOx” means Nitrogen Oxide compounds.

“ODTP” means Oven Dried Tons of Pulp.

“Parity Project” means the HVLC sources of emissions that IP will collect using the Equivalency-By-Permit regulation as defined in Appendix A.

“Physical or operational change” means any physical or operational change at the affected facility that involves the addition of a new emissions unit.

“PM” means Particulate Matter.

“PM₁₀” means Particulate Matter less than 10 microns.

“ppmv” means parts per million by volume.

“Project” means any physical change or change in the method of operation of a process or emissions unit (not including an increase in throughput), including replacement thereof, which would require a change to the emission quantification methodologies described in Sections XIV, XV, or XVI of the FESOP permit.

“SAPCB” means State Air Pollution Control Board.

"SAPCB Regulations" means 9 VAC 5 Chapters 10 through 80.

“SO₂” means Sulfur Dioxide.

“SSM” means Startup, Shutdown, Malfunction plan.

“Title V permit program” means the operating permit system established pursuant to Title V of the federal Clean Air Act and regulations and codified in Article 1 (9 VAC 5-80-50 et seq.), Article 2 (9 VAC 5-80-310 et seq.), Article 3 (9 VAC 5-80-360 et seq.), and Article 4 (9 VAC 5-80-710 et seq.) of Part II of 9 VAC 5 Chapter 80.

“TRS” means Total Reduced Sulfur.

“VOC” means Volatile Organic Compounds as defined in 9 VAC 5-10-20 of Virginia SAPCB regulations.

“Variance” means the 9 VAC 5 Chapter 230 of Virginia SAPCB regulations.

IV. Site-Wide Requirements

A. Initial Site-Wide Emission Caps

The Emission Cap for each of the following pollutants, PM, PM₁₀, SO₂, NO_x, CO, VOC, TRS, Lead, Sulfuric Acid Mist (H₂SO₄), and Fluorides is listed in the table below:

Pollutant	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	TRS	Lead	H ₂ SO ₄	Fluorides
tons/yr	1166	804	7980	3000	2568	1208	278	0.135	100	20.4

(9 VAC 5-230-40 A)

B. Adjusted Site-Wide Emission Caps

Upon demonstration of compliance with the alternative HAP emission standards under 40 CFR 63 Subpart S or on April 17, 2007, whichever is sooner, the emission caps shall be adjusted as follows:

Pollutant	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	TRS	Lead	H ₂ SO ₄	Fluorides
tons/yr	1166	804	7980	3000	2568	694	223	0.135	100	20.4

(9 VAC 5-230-40 C)

C. Future Adjustments to the Emission Caps

1. Future Regulations – If International Paper becomes subject to future regulations, International Paper may not use the emissions credits obtained from the associated emissions reductions to comply with the emission caps. The emission caps will be adjusted to account for any such applicable requirements to which International Paper has become subject. In the interim, International Paper shall submit to the Department a description of how it plans to comply with such new regulation(s) and what the associated emission change(s) will be for the pollutants specified in Paragraph A or B. The information submitted shall specify the emission units affected and any changes in emissions that will result from complying with the regulation(s).

(9 VAC 5-230-40D)

D. Operating under the Emission Caps

1. Operation of control devices
International Paper shall continue to operate the emission control equipment listed in this permit, as amended from time to time, in accordance with the SAPCB and federal regulations. The equipment shall be operated in accordance with good air pollution control practices at all times. Nothing in the permit shall act to deprive International Paper of any defenses it may have in an enforcement action or to require compliance with emission standards when not otherwise required (such as during periods of startup, shutdown and malfunction).

(9 VAC 5-230-70)

2. Prohibition on emissions trading

International Paper may not engage in any emissions trading beyond that allowed under a program approved by the SAPCB. No emissions credits obtained from emissions reductions external to the affected facility may be used to comply with the emission caps.

(9 VAC 5-230-60 B)

E. Compliance Timelines

1. Initial Site-Wide Emission Caps - International Paper shall notify the Department of the date that it will officially begin to operate under the Emission Caps listed in Section IV.A at least 30 days prior to that date. Once the start date is determined, IP shall be in compliance with all the requirements of this permit with the exception of the Caps listed in Section IV.A and B. IP shall be in compliance with the Caps listed in Section IV.A on the last day of the twelfth full month following the official start date of operating under the Caps.
2. Adjusted Site-Wide Emission Caps - International Paper shall notify the Department of the date that it will officially begin to operate under the Adjusted Emission Caps listed in Section IV.B at least 30 days prior to that date. Once the start date is determined, IP shall be in compliance with all the requirements of this permit with the exception of the Caps listed in Section IV.B. IP shall be in compliance with the adjusted Caps listed in Section IV.B on the last day of the twelfth full month following the official start date of operating under the adjusted Caps.

(9 VAC 5-230-80)

F. Compliance with State and Federal Regulations and Air Permits

The FESOP permit allows International Paper to construct new emission units or modify existing emission units at the Franklin Mill site. Any construction, reconstruction or modification activities shall be deemed to satisfy all requirements of the major and minor new source review program for the pollutants specified in Section IV.A. provided that no exceedances of any Emission Caps occur. Exceedance of any Emission Cap may subject International Paper to permitting requirements, enforcement and/or permit revocation.

(9 VAC 5-230-50 B)

1. Replacement of existing pre-construction permits

The FESOP permit replaces all the other pre-construction permits that have been issued by the Department to this site prior to the effective date of this permit, including, but not limited to the following:

- a. Power boilers permit dated 4/8/2003 and amended on 7/6/2004
- b. Digesters, Evaporators, Bleach Plant and Recovery Boiler permit dated 5/11/2004
- c. Lime Kiln permit dated 3/16/2004
- d. Paper Machine permit dated 7/5/2001
- e. Starch Silo permit dated 5/21/1993

(9 VAC 5-230-50 F)

2. Major NSR Permitting and Registration

Compliance with the FESOP permit shall be deemed to satisfy all requirements of the major new source review program for the pollutants listed in Paragraph A of this section.

- a. For any physical or operational change (as defined in Section III) that would otherwise be subject to the major NSR program, International Paper shall submit a control technology application to and shall obtain approval thereof from the Department that the control technology to be installed meets the applicable requirements of Article 4 (9 VAC 5-50-240 et seq.) of Part II of 9 VAC 5 Chapter 50. International Paper shall install emission controls that are consistent with the approval. International Paper may begin and complete actual construction of the physical or operational change prior to receiving approval from the Department if each of the following conditions is met:

- (1) International Paper has submitted an approvable control technology application for the physical or operational change with a notice of intent to begin actual construction of the physical or operational change.

- (2) International Paper has submitted a certification that it:
 - (a) freely assumes all financial and other risks associated with beginning actual construction of the physical or operational change prior to receiving the control technology approval and;
 - (b) acknowledges that the Department, in evaluating the application, may not consider any consequences to the applicant of beginning actual construction prior to receiving the control technology approval.
- (3) The Department has not, within 30 days of receipt of the application, issued a written notice to International Paper, based on concerns about air quality impacts or emissions control technology, requiring the termination of construction as soon as practicable but no later than five business days after receipt of the notice.
- (4) International Paper constructs the physical or operational change as described in the control technology application.
- (5) International Paper does not commence operation of the physical or operational change until the control technology approval has been granted.
- b. If the Department has not, within 60 days of receipt of the control technology application submitted in accordance with paragraph a of this section, issued a written notice to International Paper either approving or objecting to the construction of the physical or operational change, the control technology application may be deemed granted.

(9 VAC 5-230-50 D)

3. Minor NSR permitting

- a. Compliance with this permit shall be deemed to satisfy all requirements of minor NSR program for all pollutants listed in Paragraph A of this section.
- b. Except for pollutants specified in Paragraph A of this section, compliance with this permit does not relieve IP from obligations to comply with requirements addressing emissions of hazardous air pollutants under Articles 4 (9 VAC 5-60-200 et seq.) and 5 (9 VAC 5-60-300 et seq.) of 9 VAC 5 Chapter 60.

(9 VAC 5-230-50 C)

4. Other Regulations Encompassed

- a. New Source Performance Standards (NSPS) for Stationary Sources: International Paper is subject to various NSPS regulations and shall comply with all the requirements of each NSPS regulation. If International Paper becomes subject to a regulation listed in 40 CFR Part 60, after the effective date of the permit, the facility shall comply with all requirements under that regulation.
(9 VAC 5-230-60 A)
- b. National Emission Standards for Hazardous Air Pollutants: International Paper is subject to various NESHAP regulations and shall comply with all the requirements of each NESHAP except as listed below. If International Paper becomes subject to a regulation listed in 40 CFR Part 61 or Part 63, after the effective date of the permit, the facility shall comply with all requirements under that regulation.
 - (1) International Paper has elected to demonstrate compliance with the requirements of the HVLC portion of 40 CFR Part 63, Subpart S by using 40 CFR 63.94. International Paper shall comply with the Equivalency-By-Permit conditions for the HVLC portion of Subpart S that have been approved by EPA and the Department.
 - (2) Compliance with Subpart MM was extended by one year to March 13, 2005.
 - (3) Compliance with Phase 2 (HVLC portion) of Subpart S (63.440(d)(1)) has been extended by one year to April 17, 2007.

(9 VAC 5-230-60 A)

- c. International Paper shall remain in compliance with all other SAPCB Regulations. Compliance with this FESOP shall constitute compliance with Article 4 of 9 VAC 5 Chapter 50 and Article 6, Article 8 and Article 9 of 9 VAC 5 Chapter 80.
(9 VAC 5-230-50 B and 9 VAC 5-230-60 A)
- d. Compliance with the terms and conditions of this permit shall not relieve International Paper of its obligation to comply with applicable local, State or Federal laws and regulations not addressed in this section.
(9 VAC 5-230-60 A)

5. Compliance Determination

- a. International Paper shall demonstrate compliance with the emission caps as follows:
 - (1) Compliance shall be demonstrated on a rolling 12-month basis for each pollutant. Actual emissions for each calendar month shall be calculated by the last working day of the month following the close of the month. A 12-month total shall be calculated each month for each pollutant by adding the total emissions for the most recent month to the totals for the preceding 11 months.
 - (2) Actual emissions from existing processes (those whose emissions were included in determining the Emission caps) shall be determined using the methodology used in establishing the Emission Caps except where the Department has approved alternative emissions quantification methods.
 - (3) Actual emissions from any physical or operational changes (those not in existence on the effective date of the variance) shall be calculated using methodology approved by the Department.

(9 VAC 5-230-80)

6. Monitoring

- a. Fuel Certifications - International Paper shall obtain a certification from the fuel supplier with each shipment of coal or oil. Each fuel supplier certification shall include the following as appropriate for the fuel type:
 - (1) The name of the fuel supplier;
 - (2) The date on which the oil or coal was received;
 - (3) The volume of oil or weight of coal delivered in the shipment;
 - (4) A statement that the oil complies with the American Society for Testing and Materials specifications for the type of oil being delivered;
 - (5) The sulfur content of the oil or coal;
 - (6) Documentation of sampling of the oil indicating the location of the residual oil when the sample was drawn;
 - (7) The method used to determine the sulfur content of the residual oil or coal; and,
 - (8) The ash content of the coal.
- b. Site-Wide Monitoring - International Paper shall monitor throughputs, hours of operation, fuel sulfur and ash contents, venting minutes and other parameters as necessary to determine actual emissions to demonstrate compliance with the Emission Caps. Monitoring to show compliance with the emission caps in this permit or other SAPCB regulations shall be carried out as specified in the applicable regulations, the FESOP permit, in this permit, or as agreed to by the Department.
- c. CEMS/COMS Quality Control Program - A CEMS/COMS quality control program which meets the requirements of 40 CFR 60.13 and Appendix B and F shall be implemented for all continuous monitoring systems unless specified otherwise in this permit, except that Relative Accuracy Test Audits (RATA's) and Cylinder Gas Audits (CGAs) may be required less frequently if approved by the Department.

- d. Calculating Emissions - Actual emissions of cap pollutants from the facility shall be calculated as described in Condition 5 of this section. Records shall be kept for five years and shall be available for inspection.
- e. Air Pollution Control Equipment - Each air pollution control device shall be equipped with some means of continuously monitoring the device to determine that it is operating in an efficient manner. Monitoring shall be carried out as specified in the applicable regulations, the FESOP permit, this permit or as agreed to by the Department.

7. Testing

- a. Performance Testing - Future performance testing shall be conducted in a manner consistent with acceptable Department procedures and methods. The details of the tests and reports are to be arranged in advance with the Department. International Paper shall submit to the Department an approvable test protocol at least 30 days prior to testing. A copy of the test results shall be submitted to the Department within 60 days after test completion and shall conform to a format acceptable to the Department.
- b. Testing/Monitoring Ports - The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing stack or duct that is free from cyclonic flow. Test ports shall be provided when requested at the appropriate locations.
- c. Testing - The Department reserves the right to require site-specific testing at any time to verify compliance with information submitted by International Paper.

8. Notifications

- a. Force Majeure events shall not cause termination of the FESOP permit providing that International Paper complies with the following notification requirements:

Within four calendar days after it becomes aware of an event which International Paper believes constitutes a force majeure International Paper shall notify the Department in writing of the anticipated consequences of such event with respect to the terms and conditions of this permit and the anticipated time and methods to resolve such consequences.
- b. Within 10 calendar days of becoming aware of any exceedance of any emission cap International Paper shall notify the Department in writing of the exceedance.

9. Recordkeeping

The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this and the FESOP permit. The content and format of such records shall be arranged with the Tidewater Regional Office. These records shall include, but are not limited to:

- a. International Paper shall keep records of throughputs, fuel sulfur and ash contents, emissions and other parameters as necessary to determine actual emissions to demonstrate compliance with the Emission Caps. Records shall be kept for five years and shall be available for inspection.
- b. International Paper shall keep CMS records for #2, #3 and #4 Lime kilns (TRS and O₂), the #4, #5 and #6 Recovery Furnaces (opacity, TRS and O₂), the #5, #6 and #7 Power Boilers (opacity, NO_x, SO₂ and CO), and the #9 power boiler (opacity, NO_x and CO). (This does not include one minute data.)
- c. International Paper shall keep records of:
 - (1) Initial and continuous compliance testing.
 - (2) CMS data, calibrations and calibration checks, percent operating time, and excess emissions.
 - (3) Results of all stack tests, visible emission evaluations and performance evaluations.

- (4) Scheduled and unscheduled maintenance and operator training of air pollution control equipment, monitoring devices, and process equipment which affect emissions.

Records shall be available for inspection and shall be kept for five years.

10. Reporting

- a. Semi-Annual and Quarterly Reports - Excess Emissions and CMS Performance Reports for MACT Requirements - The permittee shall submit reports to the Director, Tidewater Regional Office, within 30 days after the end of each semi-annual or quarterly period. Each semi-annual or quarterly report shall include the following:
 - (1) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;
 - (2) The date and time identifying each period during which the CMS was out of control, as defined in 63.8(c)(7) of 40 CFR Part 63, Subpart A;
 - (3) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in 40 CFR Part 63, Subpart S, that occurs during startups, shutdowns, and malfunctions of the affected source;
 - (4) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standards, that occurs during periods other than startups, shut-downs, and malfunctions of the affected source;
 - (5) The nature and cause of any malfunction (if known);
 - (6) The corrective action taken or preventive measures adopted;
 - (7) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;
 - (8) The total process operating time during the reporting period.
 - (9) One copy of the semi-annual or quarterly report shall be submitted to the U.S. Environmental Protection Agency at the address below:

Associate Director
Office of Air Enforcement (3AP10)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029
- b. Reports for CMS - Lime kilns, Recovery Boilers and #9 Power Boiler - The permittee shall furnish written reports to the Director, Tidewater Regional Office of excess emissions on a quarterly basis, postmarked no later than the 30th day following the end of the calendar quarter. These reports shall address TRS emissions from the #2, #3, and #4 Lime Kilns, and the #4, #5, and #6 Recovery Boilers, opacity from the #4, #5, #6 Recovery Boilers and the #9 Power Boiler, and NO_x and CO emissions from the #9 Power Boiler. The reports shall include, but are not limited to the following information:
 - (1) The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;
 - (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;

- (3) The date and time identifying each period during which the continuous monitoring systems were inoperative except for zero and span checks and the nature of the system repairs or adjustments;
- (4) When no excess emissions have occurred or the CMS have not been inoperative, repaired or adjusted, such information shall be stated in that report;
- (5) The number of valid hours for each TRS/oxygen, opacity, NO_x, and/or CO CEMS during the quarter, and;
- (6) The number of operating hours for each monitored process or unit during the quarter.
- c. Monitor Downtime Reports for the #5, #6 and #7 Power boilers - The permittee shall furnish written reports to the Director, Tidewater Regional Office of monitor downtime on an annual basis, postmarked no later than the 30th day following the end of the calendar year. These reports shall include but are not limited to the following information:
 - (1) The date and time identifying each period during which each CMS was inoperative except for zero and span checks, and the nature of the system repairs or adjustments;
 - (2) The number of valid hours for each SO₂, NO_x, and CO CEMS during the year; and
 - (3) The number of operating hours for each boiler during the year.
- d. Annual Reports - International Paper shall include the following with the Title V annual emissions statement:
 - (1) For projects (as defined in Section III) completed at the mill during the reporting period:
 - (a) A brief description of each project explaining what changes were made and any impacts the change may have on air pollution emissions, and
 - (b) If a change in an emission factor is being submitted with the emissions statement, justification must be submitted with the statement. This justification may include emission testing from before and after the project completion to prove change the in emission factor.
 - (2) International Paper shall submit a summary of the monthly and rolling 12-month totals of all emission cap pollutants for the reporting period.

(9 VAC 5-230-50 F and 80)

V. Unbleached Pulp Mill Process Area

The emission units associated with this section of the permit are the following:

Unit ID	Emission Unit Description	Unit ID	Emission Unit Description
UPM01	Batch Digester Operation	UPM16	C Knotter
UPM02	K1 & K2 Digester Operation	UPM17	D Knotter
UPM03	A Wash Line	UPM18	# 7 Brown Stock Chest
UPM04	B Wash Line	UPM19	K1 & K2 Chip Bin Venting
UPM05	C Wash Line	UPM20	Turpentine System Operation
UPM06	D Wash Line	UPM21	Multiple Foam Tanks
UPM07	A Noss Screens	UPM22	K1 Chip Cyclone
UPM08	B Noss Screens	UPM23	K2 Chip Cyclone
UPM09	C Screens	UPM24	Chip Handling/Conveyor
UPM10	D Screens	UPM25	Batch Digester Chip Bin Filling
UPM11	B Decker	UPM26	D Wash HVLC Gas Collection System Venting
UPM12	D Decker	UPM27	Batch Digester Blow Heat LVHC System Venting (BHA)
UPM13	E Decker	UPM28	Continuous Digester LVHC System Venting
UPM14	A Knotter	UPM29	K1 & K2 Chip Bin LVHC System Venting
UPM15	B Knotter	UPM30	BOD Tank (Condensate Collection Tank)

A. Limitations

1. No owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity. Failure to meet the requirements of this condition because of the presence of water vapor shall not be a violation of this condition.
(9 VAC 5-40-80 and 9 VAC 5-80-110)
2. At all times, including periods of startup, shutdown and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions.
(9 VAC 5-40-20 E and 9 VAC 5-80-110)
3. No owner or operator shall cause or permit to be discharged into the atmosphere from any digester systems (UPM01 & 02) any TRS in excess of 5 ppm by volume on a dry basis, corrected to 10% oxygen.
(9 VAC 5-40-1690 and 9 VAC 5-80-110)
4. The LVHC gases from the digesters (UPM01,02), turpentine systems (UPM20) and BOD tank (UPM30) shall be collected by the NCG collection system and routed to the #6 and #7 Power boilers (PWR02 & 03) for destruction.
(9 VAC 5-60-100 and 9 VAC 5-80-110)
5. To comply with 40 CFR 63.443 (a)(1) the facility shall control the HAP emissions from the following equipment systems:
 - a. Each LVHC system. (See Appendix B.)

- b. Each knotter or screen system (UPM07-10 and UPM14-17) with total HAP mass emission rates greater than or equal to the rates specified in §63.443(a)(1)(ii)(A) or (a)(1)(ii)(B) or the combined rate specified in §63.443 (a)(ii)(C).

Note:

- (1) *emissions from the mill's knotter and screen systems are not required to be collected and controlled. These systems have been found to have HAP concentrations below the thresholds specified in §63.443(a)(1)(ii).*
- (2) *emissions from the E-decker (UPM13) are not required to be controlled since the HAP (as MeOH) content of the shower water used on this system was found to be less than the threshold specified in §63.443(a)(1)(iv)(B).*

- c. D-Wash Line Washer and Accepts Tank (UPM06)
- d. B-Decker and Filtrate Tank (UPM11)
- e. No. 1 High Density Storage Tank (BLP06)

The collection of HVLC system gases shall include the gases from the units listed in b-e above.
(9 VAC 5-60-100 and 9 VAC 5-80-110)

- 6. The HVLC gases from D-Wash Line Washer and Accepts Tank (UPM06), the B-Decker and Filtrate Tank (UPM11), and the No. 1 High Density Storage Tank (BLP06) shall be collected by a closed vent system and routed to the RTO (MIS08) for destruction.
(9 VAC 5-60-100 and 9 VAC 5-80-110)
- 7. The RTO (MIS08) used to reduce total HAP emissions shall be designed and operated at a minimum temperature of 871°C (1600°F) and a minimum residence time of 0.75 seconds.
(9 VAC 5-60-100 and 9 VAC 5-80-110)
- 8. The pulping process condensates shall be collected from the following equipment: each digester system (UPM01 & 02), each turpentine recovery system (UPM20), each LVHC collection system (see Appendix B) and each HVLC collection system (see Appendix A).
(9 VAC 5-60-100)
- 9. The pulping process condensates collected from the equipment listed in the previous condition, must contain at least 65% of the total HAP mass (as methanol) from the digester system (UPM01 & 02), the turpentine system (UPM20), and evaporator systems (CRE07-10) and all of the condensates for the LVHC and HVLC collection systems (see Appendices A & B), expressed as a 15-day rolling average.
(9 VAC 5-60-100)
- 10. The pulping process condensates shall be conveyed in a closed collection system which meets the individual drain system requirements specified in 63.960, 63.961 and 63.962 of 40 CFR Part 63, Subpart RR except for closed vent systems and control devices shall be designed and operated in accordance with 63.443(d) and 63.450, instead of in accordance with 63.693 as specified in 63.962(a)(3)(ii), (b)(3)(ii)(A), and (b)(5)(iii).
(9 VAC 5-60-100)
- 11. The condensate collection tank (CRE18) shall have a fixed roof and all openings shall be designed and operated with no detectable leaks as indicated by an instrument reading of <500 ppm VOC (Method 21) above background and vented into a closed-vent system meeting the requirements of 63.450 and routed to a control device that meets the requirements in 63.443(d). Each opening shall be maintained in a closed, sealed position at all times that the tank contains pulping condensates or HAPs except when it is necessary to use the opening for sampling, removal, or for equipment inspection, maintenance, or repair.
(9 VAC 5-60-100)

12. The pulping process condensates shall be treated by the steam stripper (CRE16). The treatment of the condensates by the stripper must reduce the total HAPs by either $\geq 92\%$ by weight or remove 10.2 pounds per Oven Dried Ton of Pulp. Each HAP removed from the process condensate streams during treatment and handling by stripper shall be enclosed and vented into a closed vent system (the NCG system) and routed to power boilers #6 or #7 (PWR02 or 03) for destruction. The enclosures and closed vent systems must meet the requirements of 63.443(d)(4) and 63.450 of 40 CFR Part 63, Subpart S.
(9 VAC 5-60-100)
13. Each enclosure shall maintain negative pressure at each enclosure or hood opening. Each enclosure or hood opening closed during the initial performance test specified in 40 CFR 63.457(a) shall be maintained in the same closed and sealed position as during the performance test at all times except when necessary to use the opening for sampling, inspection, maintenance or repairs.
(9 VAC 5-60-100)
14. Each component of the closed-vent system used to comply with 40 CFR 63.443(c), 63.444(b), and 63.4445(b) that is operated at a positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500ppmv above background as measured by the procedures specified in 40 CFR 63.457(d).
(9 VAC 5-60-100)
15. Except where this permit is more restrictive than the applicable requirement, the MACT equipment as labeled in Section II shall be operated in compliance with the requirements of 40 CFR Part 63, Subpart S. Compliance with the conditions of this permit that address MACT I, Phase 2 (HVLC gas collection and destruction) requirements shall be achieved no later than April 17, 2007.
(9 VAC 5-60-90, 9 VAC 5-60-100)
16. Periods of excess emissions reported under 40 CFR 63.455 shall not be a violation of 40 CFR 63.443 (c) and (d) provided that the time of excess emissions (excluding periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed the following levels:
 - a. One percent for control devices used to reduce the total HAP emissions from the LVHC system; and
 - b. Four percent for control devices used to reduce the total HAP emissions from the HVLC system; and
 - c. Four percent for control devices used to reduce the total HAP emissions from both the LVHC and HVLC systems.
(9 VAC 5-80-110 and 40 CFR 63.443(e))
17. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - b. Maintain an inventory of spare parts.
 - c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
 - d. Train operators in the proper operation of all such equipment prior to such operation and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to Department personnel upon request.

(9 VAC 5-80-110)

B. Monitoring

1. The NCG Collection System shall be equipped with devices to continuously monitor the status of all rupture disks, pressure vacuum breakers (pvb), or other venting systems. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the NCG Collection System is operating.
(9 VAC 5-80-110)
2. NCG collection system - The computer system used to continuously monitor each vent shall be equipped with an alarm to alert the operator when a release has occurred.
(9 VAC 5-80-110)
3. To demonstrate compliance with the 65% collection of all HAPs (as MeOH) produced per Condition V.A.9, the permittee shall monitor/calculate, on a daily basis, the HAP (as MeOH) mass from the digester system, turpentine system, and evaporator system and the HAP (as MeOH) mass of the collected streams which shall be sent to the condensate steam stripper for treatment. The daily monitoring shall be generated from flows, mass balance, and the annual HAP (as MeOH) testing. The daily HAP (as MeOH) mass shall be averaged over a 15-day period to determine a 15-day rolling average of the percent of HAP (as MeOH) collected.
(9 VAC 5-80-10)
4. To demonstrate compliance with the 92% reduction of HAPs per Condition V.A.12, the steam stripper (CRE16) shall be equipped with a device to continuously measure and record the process wastewater feed rate; the steam feed rate; and the process wastewater column feed temperature. Monitoring shall be done using 3-hour rolling averages for the steam to feed ratio and process wastewater column feed temperature. The steam feed rate and process wastewater feed rate shall be used to determine the steam to feed ratio. Each monitoring device shall be installed, maintained and calibrated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the stream stripper is operating.
(9 VAC 5-80-1180, 9 VAC 5-50-20 C, 9 VAC 5-50-260, 9 VAC 5-60-100)
5. Steam Stripper (CRE16) - An alarm shall be used to signal when the monitoring parameters (the process wastewater feed rate; the steam feed rate; and the process wastewater column feed temperature of the steam stripper) drift out of the acceptable range triggering the need for prompt corrective action. The permittee shall keep a log summarizing each event (date and time of commencement and completion, parameter monitoring exceedances) and corrective action taken.
(9 VAC 5-50-50 H)
6. Each enclosure and closed vent system used to comply with Subpart S shall have a visual inspection conducted once during each calendar month, with at least 21 days elapsed time between inspections, to ensure each opening is maintained in the closed position and sealed. The permittee shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment. The inspection shall include the ductwork, piping, enclosures, and connections to covers for visible evidence of defects. An inspection log shall be kept containing the information specified in 40 CFR 63.454(b).
(9 VAC 5-60-100)
7. Each enclosure and closed-vent system shall demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in 63.457(e) of 40 CFR Part 63, Subpart S.
(9 VAC 5-60-100)

8. Each positive pressure closed-vent system shall demonstrate no detectable leaks as specified in 63.450(c) of 40 CFR Part 63, Subpart S measured initially and annually by procedures in 63.457(d) of 40 CFR Part 63, Subpart S.
(9 VAC 5-60-100)
9. Each pulping process condensate closed collection system shall be visually inspected once during each calendar month, with at least 21 days elapsed time between inspections. Recordkeeping requirements shall meet 63.454 of 40 CFR Part 63, Subpart S. Each collection tank shall be operated with no detectable leaks as specified in 63.446(d)(2)(i) of 40 CFR Part 63, Subpart S.
(9 VAC 5-60-100)
10. The RTO (MIS08) shall be equipped with a device to continually measure and record the temperature. There shall be an alarm system that sounds if the RTO temperature falls below 871°C (1600°F).
(9 VAC 5-60-100 and 9 VAC 5-80-110)
11. Each condensate collection tank (CRE18) shall be operated with no detectable leaks as specified in 63.446(d)(2)(i) of 40 CFR Part 63, Subpart S measured initially and annually by the procedures in 63.457(d) of 40 CFR Part 63, Subpart S.
(9 VAC 5-60-100)

C. Recordkeeping and Reporting

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Department. These records shall include, but are not limited to:
 - a. Number of minutes each venting system vents from the NCG Collection System to the atmosphere and all TRS release event minute records.
 - b. Daily monitoring of the percent of HAP (as MeOH) collected and 15-day rolling average.
 - c. Daily amount of HAPs (as MeOH) sent to the stripper. (This is only necessary when compliance is based on the 10.2 pounds per Oven Dried Ton of Pulp limit.)
 - d. Daily amount of Oven Dried Tons Pulp processed. (This is only necessary when compliance is based on the 10.2 pounds per Oven Dried Ton of Pulp limit.)
 - e. Daily amount of HAPs (as MeOH) removed by stripper. (This is only necessary when compliance is based on the 10.2 pounds per Oven Dried Ton of Pulp limit.)
 - f. Monthly visual observation logs of the LVHC, HVLC and the condensate closed collection systems including the information specified in 63.454(b) (see Appendices A & B).
 - g. RTO temperature data/records (MIS08).
 - h. Annual monitoring of the condensate collection tank, condensate closed collection system, and closed-vent systems.
 - i. Continuous monitoring system calibrations and equipment checks, percent operating time, and resultant excess emissions.
 - j. Operation and control device monitoring records for the condensate collection system and the NCG collection system.
 - k. Scheduled and unscheduled maintenance and operator training of air pollution control equipment, monitoring devices, and process equipment which affect emissions.

1. Initial and continuing compliance testing.

These records shall be available at the facility for inspection by the Department and shall be current for the most recent 5 years.

(9 VAC 5-80-110)

2. The permittee shall submit excess emission and continuous monitoring system reports for the TRS collection system, the LVHC system, the HVLC system, and the condensate collection system to the Department, within 30 days after the end of each semi-annual period. Each semi-annual report shall include the following:
- The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;
 - The date and time identifying each period during which the CMS was out of control, as defined in 63.8(c)(7) of 40 CFR Part 63, Subpart A;
 - The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in 40 CFR Part 63, Subpart S, that occurs during startups, shutdowns, and malfunctions of the affected source;
 - The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standards, that occurs during periods other than startups, shut-downs, and malfunctions of the affected source;
 - The nature and cause of any malfunction (if known);
 - The corrective action taken or preventive measures adopted;
 - The nature of the repairs or adjustments to the CMS that was inoperative or out of control;
 - The total process operating time during the reporting period.

One copy of the semi-annual report shall be submitted to the U.S. Environmental Protection Agency at the address below:

Associate Director
Office of Air Enforcement (3AP10)
U. S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-170-160 and 9 VAC 5-50-50)

3. The permittee shall furnish written notification to the Department of any changes to the sources of shower water to the lines listed in a-f below. Current sources are as follows:
- A & B Washer systems (UPM03 & 04) – D-Decker filtrate (UPM12) or E-Decker filtrate (UPM13)
 - D-Decker system (UPM12) – F-Bleach Line pre-O₂ press filtrate (BLP05).
 - C-Washer system (UPM05) – E-Decker filtrate (UPM13).
 - E-Decker system (UPM13) – either stripped condensate, paper machine white water or hot fresh water.
 - C-Wash Line Knotters and Screens (UPM09 & 16) – E-Filtrate Tank (UPM13).
 - D-Wash Line Knotters and Screens (UPM10 & 17) – D-Washer Seal (Filtrate) Tank (UPM06)

In addition, the permittee shall notify the Department when any changes occur at the facility (e.g., operational or process changes, operating scenario changes, etc.) that could potentially increase the amount of HAP in the decker filtrate waters above the 400 ppm HAP (as methanol) threshold.

(9 VAC 5-80-110)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)
2. Each enclosure and closed-vent system shall demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in 63.457(e) of 40 CFR Part 63, Subpart S.
3. Each positive pressure closed-vent system shall demonstrate no detectable leaks as specified in 63.450(c) of 40 CFR Part 63, Subpart S measured initially and annually by procedures in 63.457(d) of 40 CFR Part 63, Subpart S.
4. Each condensate collection tank shall be operated with no detectable leaks as specified in 63.446(d)(2)(i) of 40 CFR Part 63, Subpart S measured initially and annually by the procedures in 63.457(d) of 40 CFR Part 63, Subpart S.
5. To demonstrate compliance with the 65% collection of all HAPs (as methanol) produced, the permittee shall perform testing for the HAP (as MeOH) mass from the streams named in Condition V.A.8 and the HAP (as MeOH) mass of the collected streams which shall be sent to the condensate stripper for treatment. The daily HAP (as MeOH) mass shall be averaged over a 15-day period to determine a 15-day rolling average of the percent of HAP (as MeOH) collected. The testing shall be performed once every fifth calendar quarter.
(9 VAC 5-80-110)
6. If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods or other approved 40 CFR Part 60, Appendix A tests in accordance with procedures approved by the Department as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
Visible Emission	EPA Method 9, 9 (Alternate Method 1- LIDAR)
VOC	EPA Methods 18, 25, 25A, 25 B
VOC Content	EPA Methods 24, 24a
TRS	EPA Method 15, 15A, 16A, 16B
Methanol	EPA Method 308, NCASI Method DI/MEOH-94.03
VOC Leak Check	EPA Method 21

(9 VAC 5-80-110)

VI. Caustic Recovery Process Area

The emission units associated with this section of the permit are the following:

Unit ID	Emission Unit Description	Unit ID	Emission Unit Description
CAU01	No. 2 Lime Kiln	CAU07 (cont)	Causticizer Standpipe
CAU02	No. 3 Lime Kiln		White Liquor Clarifiers (4)
CAU03	No. 4 Lime Kiln		White Liquor Standpipes (2)
CAU04	No. 5 Slaker		White Liquor Day Tank
CAU05	No. 6 Slaker		Reserve Tanks used for WL storage (2) & 1 swing tank (WL or GL)
CAU06	Green Liquor Handling	CAU08	Lime Mud Handling
	Green Liquor Surge Tank		Unwashed Mud Mix Tank
	Green Liquor Spill Tank		Lime Mud Pressure Filter Feed Tanks (2)
	Green Liquor Clarifiers (3)		Lime Mud Pressure Filters (2)
	No. 3 White Liquor Clarifier		Mud Washer
	Green Liquor Standpipe		Washed Mud Mix Tank
	Green Liquor Day Tank		Lime Mud Storage Tanks (4)
	Dregs Filter Mix Tank		Dewatering Aid Tank
	Dregs Filter Hood		Precoat Filter Vacuum Pumps (3)
	Dregs Filter Vacuum Pump	CAU09	Lime Handling
	Dregs Filter Dump Tank	CAU10	Fillback Storage
	Reserve Tank used for GL storage		Fillback Tank
CAU07	White Liquor Handling		Fillback Standpipe
	Grits Mix Tank	CAU11	No. 2 Lime Kiln Mud Precoat Filter
	Grits Washers (2)	CAU12	No. 3 Lime Kiln Mud Precoat Filter
	Grits Washwater Return Standpipe	CAU13	No. 4 Lime Kiln Mud Precoat Filter
	Causticizers (8)		

A. Limitations

1. Particulate Matter emissions from the three Lime Kilns (CAU01, 02 and 03) shall be controlled by Venturi Scrubbers. The Venturi Scrubbers shall be provided with adequate access for inspection and shall be in operation when the Lime Kilns are operating.
(9 VAC 5-80-110 and 9 VAC 5-230-50F)
2. The permittee must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere from the three lime kilns (CAU01, 02, and 03) is less than or equal to the PM emission limits established under 40 CFR 63.862(a)(1)(i) and (ii) of Subpart MM.

PM emission limits for the three lime kilns shall be established as specified in 40 CFR 63.862(a)(1)(i) and (ii) using the methods in 40 CFR 63.865(a)(1) and (2). The limits must be reestablished if either of the following actions occurs:

- a. The air pollution control system for any existing lime kiln is modified (as defined in 40 CFR 63.861) or replaced;
- b. Any lime kiln for which an emission limit was established is shut down for more than 60 consecutive days

The limits shall be approved by the Department. The permittee shall show compliance with the established limits as defined in 40 CFR 63.865(b).

(9 VAC 5-80-110 and 40 CFR 63.862(a)(1)(i) and (ii))

3. Corrective action shall be implemented for the Lime Kilns (CAU01, 02 and 03) if any 3-hour average parameter value is outside the range of values established during the initial performance test in 40 CFR 63.864(j). The units shall be considered in violation when six or more 3-hour average parameter values within any 6-month reporting period are outside the range of values (non SSM events) established in 40 CFR 63.864(j).
(9 VAC 5-80-110, 40 CFR 63.862(a)(1)(ii) and 40 CFR 63.864(j) & (k))
4. No owner or operator of any Lime Kilns (CAU01, 02 and 03) shall cause or permit to be discharged into the atmosphere any particulate matter emissions in excess of 1.00 lb/ADTP.
(9 VAC 5-80-110 and 9 VAC 5-230-50F)
5. Visible emissions from the Lime Kilns (CAU01, 02 and 03) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). Failure to meet this requirement because of the presence of water vapor shall not be a violation.
(9 VAC 5-80-110 and 9 VAC 5-230-50F)
6. No owner or operator of any Slaker Tank Units (CAU04 and 05) shall cause or permit to be discharged into the atmosphere any particulate matter emissions in excess of 0.30 lb/ADTP.
(9 VAC 5-40-1680 and 9 VAC 5-80-110)
7. Visible emissions from the Slaker Tanks (CAU04 and 05) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction. Failure to meet this requirement because of the presence of water vapor shall not be a violation.
(9 VAC 5-40-80 and 9 VAC 5-80-110)
8. At all times, including periods of startup, shutdown and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions.
(9 VAC 5-40-20 E and 9 VAC 5-80-110)
9. Visible emissions from each aboveground storage tank (CAU06, 07, 08 and 10) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet this requirement because of the presence of water vapor shall not be a violation.
(9 VAC 5-40-80 and 9 VAC 5-80-110)
10. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - b. Maintain an inventory of spare parts.
 - c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
 - d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to Department personnel upon request.

(9 VAC 5-80-110 and 9 VAC 5-230-50F)

B. Monitoring

1. Each Venturi Scrubber for the Lime Kilns (CAU01, 02 and 03) shall be equipped with a Continuous Parameter Monitoring System (CPMS). The CPMS shall include a device to continuously measure: the differential pressure drop across the scrubber and the scrubber liquid flow rate. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The CPMS shall track the parameter values on a three hour rolling average. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the Lime Kilns are operating.

The permittee is considered in violation of Condition A.2 of this section when six or more 3-hour average parameter values within any 6-month period are outside the range of values established in the performance test. See condition A.3 of this section.

The permittee must implement corrective action as specified in the startup, shutdown and malfunction plan prepared in accordance with 63.866(a) whenever the 3-hour average of any lime kiln scrubber CPMS parameter is outside its established operating range (from performance testing), excluding average CPMS values outside the established operating range caused by startup, shutdown and malfunction..

(9 VAC 5-80-110, 40 CFR 63.864(k)(1)(ii) and (k)(2)(iii))

2. Each Venturi Scrubber for the Lime Kilns (CAU01, 02 and 03) shall be equipped with a device to continuously measure the scrubber refresh flow rate. The monitoring device shall installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the Lime Kilns are operating.
(9 VAC 5-80-110)
3. A Continuous Emission Monitoring System shall be installed to measure and record the emissions of TRS from the lime kiln stacks as ppmvd. A Continuous Emission Monitoring System shall be installed to measure and record the percentage oxygen in the stack gases of each lime kiln. Except where otherwise indicated in this condition, both CEMS shall be installed, calibrated, maintained, audited and operated in accordance with requirements of the Department's approved procedures which are equivalent to the requirements of 40 CFR 60.13 and 40 CFR Part 60, Appendix F. The SPAN VALUE for the TRS monitor shall be established by using historical data and approved by the Department. Data from each monitoring system shall be reduced to 24-hour block averages per calendar day by calculating the arithmetic mean of the appropriate 24 contiguous valid 1-hour averages. Using the corresponding 24-hour block TRS and oxygen averages, calculate a TRS concentration as ppmvd corrected to 10% oxygen, using the equation in 9 VAC 5-40-1780 B.3. Valid TRS/oxygen data shall be obtained for no less than 75% of the operating hours of each quarter. Section 4 of 40 CFR 60 Appendix F shall be the basis for determining valid data. A 24-hour block average shall be considered valid if at least 50% of the operating hours in the 24-hour period are valid data hours.
(9 VAC 5-80-110)

C. Recordkeeping and Reporting

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Department. These records shall include, but are not limited to:
 - a. The production rates of CaO in tons/day for each lime kiln.
 - b. Daily operating periods for each lime kiln to show compliance with 9 VAC 5-40-1770 C.

- c. CPMS parameter monitoring data for the lime kiln scrubbers including any period when the operating parameter levels were inconsistent with the level established during the initial performance test, with a brief explanation of the cause of the deviation, the time the deviation occurred, the time corrective action was initiated and completed, and the corrective action taken.
- d. Records and documentation of supporting calculations for compliance determinations made under 63.865(a)-(e).
- e. Records of monitoring parameter ranges established for each lime kiln scrubber in accordance with 40 CFR 63.864(j) and 63.867(b).
- f. Daily 24-hour average TRS concentrations, 24-hour average oxygen concentrations, and the corrected TRS concentrations for each lime kiln in accordance with 9 VAC 5-40-1780 B.
- g. TRS CEMS records from each lime kiln. (This does not include one-minute data.).
- h. Continuous monitoring system (TRS CEMS) calibrations and calibration checks, percent operating time, and excess emissions.
- i. Scheduled and unscheduled maintenance, and operator training of the Lime Kilns and associated pollution control equipment.
- j. Records of stack test data.
- k. The permittee must maintain records of any occurrence when corrective action is required under 40 CFR 63.864(k)(1)(ii), and when a violation is noted under 40 CFR 63.864(k)(2)(i) or (iii).

These records shall be available at the facility for inspection by the Department and shall be current for the most recent 5 years.

(9 VAC 5-80-110 and 40 CFR 63.866)

- 2. The permittee shall furnish written reports to the Department of excess emissions from any process monitored by a continuous monitoring system (CEMS) (TRS monitoring for the Lime Kilns) on a quarterly basis, postmarked no later than the 30th day following the end of the calendar quarter. These reports shall include, but are not limited to the following information:
 - a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions.
 - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted.
 - c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
 - d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.
 - e. The number of valid hours for each TRS/oxygen continuous emission monitoring system during the quarter.
 - f. The number of operating hours for each kiln during the quarter.

(9 VAC 5-80-110)

3. The permittee shall furnish written excess emission reports to the Department for the CPMS on the Lime Kiln scrubbers.
 - a. The owner or operator must report quarterly if measured parameters meet any of the conditions specified in 40 CFR 63.864(k)(1) or (2) of Subpart MM. This report must contain the information specified in 40 CFR 63.10(c) of as well as the number and duration of occurrences when the source met or exceeded the conditions in 40 CFR 63.864(k)(1), and the number and duration of occurrences when the source met or exceeded the conditions in 40 CFR 63.864(k)(2). Reporting excess emissions below the violation thresholds of 40 CFR 63.864(k) does not constitute a violation of the applicable standard.
 - b. When no exceedances of parameters have occurred, the owner or operator must submit a semiannual report stating that no excess emissions occurred during the reporting period.
 - c. Quarterly and semiannual reports are to be postmarked no later than the 30th day following the end of the calendar quarter and semiannual period, respectively.
(9 VAC 5-80-110 and 40 CFR 63.864)
4. The permittee shall comply with the additional reporting requirements for HAP Metals standards as specified in 40 CFR 63.867(b) within 180 days of the event that triggers this notification.
(9 VAC 5-80-110 and 40 CFR 63.867(b))

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-40-30, 9 VAC 5-80-110)
2. The permittee shall perform a stack test once each permit term on each Slaker Tank Unit (CAU04 and 05) to prove compliance with the particulate emission standard.
(9 VAC 5-80-110)
3. The permittee shall have established operating ranges for each Lime Kiln scrubber CPMS in accordance with 40 CFR 63.864(j).
(9 VAC 5-80-110 and 40 CFR 63.864(j))
4. If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods or other approved 40 CFR Part 60, Appendix A tests in accordance with procedures approved by the Department as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25A, 25B
VOC Content	EPA Methods 24, 24a
NO _x	EPA Method 7, 7A, 7B, 7C, 7D, 7E
SO ₂	EPA Method 6, 6C
CO	EPA Method 10, 10 B
PM/PM-10	EPA Method 5, 17
Visible Emission	EPA Method 9, 9 (Alternate Method 1- LIDAR)
TRS	EPA Method 15, 15A, 16A, 16B
Lead	EPA Method 29

(9 VAC 5-80-110)

VII. Chemical Recovery Process Area

The emission units associated with this section of the permit are the following:

Unit ID	Emission Unit Description	Unit ID	Emission Unit Description
CRE01	No. 4 Recovery Furnace	CRE11(cont)	#2Dump tank
	4 RF saltcake mix tank		#2 Weak black liquor tank
CRE02	No. 5 Recovery Furnace		#3 Weak black liquor tank
	5 RF precipitator mix tank		#1Dump tank
	5 RF saltcake mix tank	CRE12	Intermediate Black Liquor Storage
CRE03	No. 6 Recovery Furnace		BLOX foam tank
	6 RF precipitator mix tank		#1 Reserve tank
CRE04	No. 4 Rec. Smelt Dissolving Tank		#2 Reserve tank
CRE05	No. 5 Rec. Smelt Dissolving Tank		#4 Reserve tank
CRE06	No. 6 Rec. Smelt Dissolving Tank		#3 Heavy Black liquor tank
	6 RF saltcake mix tank	CRE13	Heavy Black Liquor Storage
CRE07	D Set Evaporators		64% black liquor tank
CRE08	E Set Evaporators	CRE15	Stripper Feed Tank Venting
CRE09	F Set Evaporators	CRE16	Condensate Stripper System
CRE10	G Set Evaporators		Stripper Feed Tank
CRE11	Weak Black Liquor Storage	CRE17	BLOX System Tanks (4)
	#1Weak Black Liquor Tank		

A. Limitations

1. No owner or operator shall cause or permit to be discharged into the atmosphere from all Recovery Furnace Units (CRE01, 02 and 03) any particulate emissions in excess of 3.00 lb/ADTP.
(9 VAC 5-40-1680 and 9 VAC 5-80-110)
2. No owner or operator shall cause or permit to be discharged into the atmosphere from all Smelt Dissolving Tank Units (CRE04, 05 and 06) any particulate emissions in excess of 0.75 lb/ADTP.
(9 VAC 5-40-1680 and 9 VAC 5-80-110)
3. The permittee must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere from the recovery furnace (CRE01, 02, and 03) and the smelt dissolving tank (CRE04, 05 and 06) sources is less than or equal to the PM emission limits established under 40 CFR 63.862(a)(1)(ii) of Subpart MM.

PM emission limits for the smelt dissolving tanks and the recovery furnaces shall be established as specified in 40 CFR 63.862(a)(1)(ii) using the methods in 40 CFR 83.865(a)(1) and (2). The limits must be reestablished if either of the following actions occurs:

- a. The air pollution control system for any existing kraft recovery furnace, smelt dissolving tank, or lime kiln is modified (as defined in 40 CFR 63.861) or replaced;
- b. Any kraft recovery furnace, smelt dissolving tank for which an emission limit was established is shut down for more than 60 consecutive days

The limits shall be approved by the Department. The permittee shall show compliance with the established limits as defined in 40 CFR 63.865(b).

(9 VAC 5-80-110 and 40 CFR 63.862(a)(1)(ii))

4. No owner or operator shall cause or permit to be discharged into the atmosphere from the Recovery Furnace Units (CRE01 and 02) any total reduced sulfur (TRS) in excess of 20 ppm by volume on a dry basis, corrected to 8% oxygen.
(9 VAC 5-40-1690 and 9 VAC 5-80-110)

5. No owner or operator shall cause or permit to be discharged into the atmosphere from the Recovery Furnace Unit (CRE03) any TRS in excess of 5 ppm by volume on a dry basis, corrected to 8% oxygen.
(9 VAC 5-40-1690 and 9 VAC 5-80-110)
6. No owner or operator of any Multiple-Effect Evaporator Systems (CRE07, 08, 09 and 10) shall cause or permit to be discharged into the atmosphere any TRS in excess of 5 ppm by volume on a dry basis, corrected to 10% oxygen.
(9 VAC 5-40-1690 and 9 VAC 5-80-110)
7. No owner or operator of any Condensate Stripper Systems (CRE16) shall cause or permit to be discharged into the atmosphere any TRS in excess of 5 ppm by volume on a dry basis, corrected to 10% oxygen.
(9 VAC 5-40-1690 and 9 VAC 5-80-110)
8. No owner or operator of all Smelt Dissolving Tank Units (CRE04, 05 and 06) shall cause or permit to be discharged into the atmosphere any TRS in excess of 0.033 pounds per ton of black liquor solids as H₂S.
(9 VAC 5-40-1690 and 9 VAC 5-80-110)
9. Visible emissions from the Smelt dissolving tanks, the Black Liquor Storage Tanks and Soap Storage Tank (CRE04, 05, 06, 11, 12, 13, and 14) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this standard.
(9 VAC 5-40-1710, 9 VAC 5-40-80 and 9 VAC 5-80-110)
10. Corrective action shall be implemented for the Smelt Dissolving Tank Units (CRE04, 05 and 06) if any 3-hour average parameter value is outside the range of values established during the initial performance test in 40 CFR 63.864(j). The units shall be considered in violation when six or more 3-hour average parameter values within any 6-month reporting period are outside the range of values (non SSM events) established in 40 CFR 63.864(j).
(9 VAC 5-80-110, 40 CFR 63.862(a)(1)(ii) and 40 CFR 63.864(j) & (k))
11. Visible emissions from the Recovery Furnaces (CRE01, 02 and 03) shall not exceed 35% opacity. The permittee shall implement corrective action if the average of 10 consecutive 6-minute averages result in an opacity of greater than 20%. The units shall be considered in violation of 40 CFR 63.862 if the opacity is greater than 35% for 6 percent or more of the operating time (non SSM events) within any quarterly period.
(9 VAC 5-40-1710, 9 VAC 5-80-110, 40 CFR 63.862(a)(1)(ii) and 40 CFR 63.864(j) & (k))
12. Visible emissions from the #4 Recovery boiler (CRE01) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-110)
13. To comply with 40 CFR 63.443 (a)(1) the facility shall control the HAP emissions from the following equipment systems:
 - a. Each LVHC system (See Appendix B).
 - b. Nos. 1-4 BLOX Tank Vents (CRE17).The collection of HVLC system gases shall include the gases from the units listed in b. above.
(9 VAC 5-80-110)
14. The HVLC gases from the #1-#4 BLOX Tank Vents (CRE17) shall be collected by a closed vent system and routed to the Regenerative Thermal Oxidizer(RTO) for destruction.
(9 VAC 5-60-100 and 9 VAC 5-80-110)

15. The RTO (MIS08) used to reduce total HAP emissions shall be designed and operated at a minimum temperature of 871°C (1600°F) and a minimum residence time of 0.75 seconds.
(9 VAC 5-60-100 and 9 VAC 5-80-110)
16. The pulping process condensates shall be collected from the following equipment: each evaporator system (CRE07-10), each LVHC collection system (see Appendix B) and each HVLC collection system (see Appendix A)
(9 VAC 5-60-100)
17. The pulping process condensates collected from the equipment listed in condition V.A.16 above, must contain at least 65% of the total HAP mass (as MeOH) from the digester system (UPM01 & 02), the turpentine system (UPM20), and evaporator systems (CRE07-10) and all of the condensates for the LVHC and HVLC collection systems (see Appendices A & B), expressed as a 15-day rolling average
(9 VAC 5-60-100)
18. The pulping process condensates shall be conveyed in a closed collection system which meets the individual drain system requirements specified in 63.960, 63.961 and 63.962 of 40 CFR Part 63, Subpart RR except for closed vent systems and control devices shall be designed and operated in accordance with 63.443(d) and 63.450, instead of in accordance with 63.693 as specified in 63.962(a)(3)(ii), (b)(3)(ii)(A), and (b)(5)(iii).
(9 VAC 5-60-100 and 9 VAC 5-80-110)
19. The condensate collection tank shall have a fixed roof and all openings shall be designed and operated with no detectable leaks as indicated by an instrument reading of <500 ppm VOC (Method 21) above background and vented into a closed-vent system meeting the requirements of 63.450 and routed to a control device that meets the requirements of 63.443(d). Each opening shall be maintained in a closed, sealed position at all times that the tank contains pulping condensates or HAPs except when it is necessary to use the opening for sampling, removal, or for equipment inspection, maintenance, or repair.
(9 VAC 5-60-100)
20. The pulping process condensates shall be treated by the steam stripper (CRE16). The treatment of the condensates by the stripper must reduce the total HAPs by either $\geq 92\%$ by weight or remove 10.2 pounds per Oven Dried Ton of Pulp. Each HAP removed from the process condensate streams during treatment and handling by stripper shall be enclosed and vented into a closed vent system (the Non-Condensable Collection System (NCG)) and routed to power boilers #6 or #7 for destruction. The enclosures and closed vent systems must meet the requirements of 63.443(d)(4) and 63.450 of 40 CFR Part 63, Subpart S.
(9 VAC 5-80-110)
21. Except where this permit is more restrictive than the applicable requirement, the MACT equipment as described in Section II shall be operated in compliance with the requirements of 40 CFR Part 63, Subpart S. Compliance with the conditions of this permit that address MACT I, Phase 2 (HVLC gas collection and destruction) requirements shall be achieved no later than April 17, 2007.
(9 VAC 5-60-90, 9 VAC 5-60-100 and 9 VAC 5-80-110)
22. Periods of excess emissions for the steam stripper system shall not be considered a violation as long as they do not exceed 10% of the total process operating time for the semi-annual reporting period. (40 CFR 63.446(g))
(9 VAC 5-80-110)
23. Excess Emissions - Periods of excess emissions reported under 40 CFR 63.455 shall not be a violation of 40 CFR 63.443 (c) and (d) provided that the time of excess emissions (excluding periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed the following levels: (40 CFR 63.443(e))
 - a. One percent for control devices used to reduce the total HAP emissions from the LVHC system; and
 - b. Four percent for control devices used to reduce the total HAP emissions from the HVLC system; and

- c. Four percent for control devices used to reduce the total HAP emissions from both the LVHC and HVLC systems.
(9 VAC 5-80-110)
24. Each enclosure shall maintain negative pressure at each enclosure or hood opening. Each enclosure or hood opening closed during the initial performance test specified in 40 CFR 63.457(a) shall be maintained in the same closed and sealed position as during the performance test at all times except when necessary to use the opening for sampling, inspection, maintenance or repairs.
(9 VAC 5-80-110)
25. Each component of the closed-vent system used to comply with 40 CFR 63.443(c), 63.444(b), and 63.4445(b) that is operated at a positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500ppmv above background as measured by the procedures specified in 40 CFR 63.457(d).
(9 VAC 5-80-110)
26. TRS emissions from the multiple effects evaporators (CRE07, CRE08, CRE09, CRE10) and the condensate stripper (CRE16) shall be controlled by routing gases to the #6 power boiler (PWR02) or the #7 power boiler (PWR03) for destruction.
(9 VAC 5-80-110)
27. Particulate Matter emissions from the #4 Recovery Boiler (CRE01) shall be controlled by an electrostatic precipitator (ESP). The ESP shall be provided with adequate access for inspection and shall be in operation when the recovery furnace is operating, except during periods of startup, shutdown and malfunction.
(9 VAC 5-80-110)
28. TRS emissions from the LVHC non-condensable gas system (which collects gases from the digesters, turpentine system and the evaporators) shall be controlled by a packed scrubber using white liquor as the scrubbing liquid. The TRS scrubber shall be provided with adequate access for inspection. This scrubber shall be in operation to the extent necessary to meet the efficiency requirement of Condition VII. B.18.
(9 VAC 5-80-110)
29. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment (for the 'G' set of multiple effects evaporators and the steam stripper) which affect such emissions:
- Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - Maintain an inventory of spare parts adequate to ensure compliance with emission limits or standards.
 - Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
 - Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.
- Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to Department personnel upon request.
(9 VAC 5-80-110)

B. Monitoring

1. Continuous Emission Monitoring Systems (CEMS) shall be installed to measure and record the emissions of TRS (Total Reduced Sulfur) from the stack of the Recovery Furnaces (CRE01, CRE02 and CRE03) corrected to 8% O₂. The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with the requirements of the Department's approved procedures as defined in 9 VAC 5-40-1780 D. Data shall be reduced to a 24-hour average. The SPAN VALUE for the TRS monitor shall be set in accordance with 40 CFR Part 60, Subpart BB (60.284).
(9 VAC 5-40-1770, 9 VAC 5-40-1780, and 9 VAC 5-80-110)
2. A CEMS (for TRS of the recovery boilers) quality control program which is approved by the Department shall be implemented for all TRS continuous monitoring systems.
(9 VAC 5-40-1780 D, and 9 VAC 5-80-110)
3. The permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) on each exhaust stack of the No.4 Recovery Boiler (CRE01), the No.5 Recovery Boiler (CRE02) and the No.6 Recovery Boiler (CRE03). Each COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. The COMS data shall be reduced as specified in 40 CFR 63.8(g)(2) of Subpart A.
(9 VAC 5-80-110 and 40 CFR 63.864(d))
4. A continuous opacity monitoring system (COMS) shall be used to monitor the visible emissions requirement for the recovery boilers (CRE01, 02, 03) in lieu of 40 CFR, Part 60, Appendix A, Method 9. Each COMS shall be maintained and calibrated in accordance with manufacturer's recommendations at a minimum.
(9 VAC 5-80-110)
5. The permittee shall install, calibrate, maintain and operate a CPMS for each Smelt Dissolving Tank Scrubber that shall be used to determine and record the fan amps and the scrubbing liquid flow rate. The CPMS shall track the parameter values on a 3-hour rolling average basis.
(9 VAC 5-80-110 and 40 CFR 63.864(e)(10) and (e)(13))
6. The permittee must implement corrective action as specified in the startup, shutdown and malfunction plan prepared in accordance with 40 CFR 63.866(a) whenever either of the following occurs:
 - a. The average of ten consecutive 6-minute averages from any Recovery Furnace COMS results in a measurement greater than 20% opacity.
 - b. The 3-hour average of any Smelt Dissolving Tank Scrubber CPMS parameter is outside its established operating range.
(9 VAC 5-60-100 and 9 VAC 5-80-110)
7. The permittee is considered to be in violation of the emission standards for a unit under 40 CFR 63.862 if either of the following occur:
 - a. When opacity from any recovery furnace measured by a COMS is greater than 35% for 6 percent of more of the operating time within any quarterly period, excluding opacity greater than 35% caused by startup, shutdown or malfunction
 - b. When six or more 3-hour average CPMS values for a Smelt Dissolving Tank Scrubber parameter with any 6-month reporting period are outside the established operating range (from performance testing), excluding average CPMS values caused by startup, shutdown and malfunction.
(9 VAC 5-80-110 and 40 CFR 63.864(k)(2)(i) and (k)(2)(iii))

8. Each enclosure and closed vent system used to comply with Subpart S shall have a visual inspection conducted once during each calendar month, with at least 21 days elapsed time between inspections, to ensure each opening is maintained in the closed position and sealed. The permittee shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment. The inspection shall include the ductwork, piping, enclosures, and connections to covers for visible evidence of defects. An inspection log shall be kept containing the information specified in 63.454(b).
(9 VAC 5-60-100)
9. Each enclosure and closed-vent system shall demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in 63.457(e) of 40 CFR Part 63, Subpart S.
(9 VAC 5-60-100)
10. Each positive pressure closed-vent system shall demonstrate no detectable leaks as specified in 63.450(c) of 40 CFR Part 63, Subpart S measured initially and annually by procedures in 63.457(d) of 40 CFR Part 63, Subpart S.
(9 VAC 5-60-100)
11. To demonstrate compliance with the 92% reduction of HAPs, the steam stripper shall be equipped with a device to continuously measure and record the process wastewater feed rate; the steam feed rate; and the process wastewater column feed temperature. Monitoring shall be done using 3-hour rolling averages for the steam to feed ratio and process wastewater column feed temperature. The steam feed rate and process wastewater feed rate shall be used to determine the steam to feed ratio. Each monitoring device shall be installed, maintained and calibrated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the stream stripper is operating.
(9 VAC 5-80-1180, 9 VAC 5-50-20 C, 9 VAC 5-50-260, 9 VAC 5-60-100)
12. To demonstrate compliance with the 65% collection of all HAPs (as methanol) produced, the permittee shall monitor/calculate, on a daily basis, the HAP (as MeOH) mass from the digester system, turpentine system, and evaporator system and the HAP (as MeOH) mass of the collected streams which shall be sent to the condensate steam stripper for treatment. The daily monitoring shall be generated from flows, mass balance, and the annual HAP (as MeOH) testing. The daily HAP (as MeOH) mass shall be averaged over a 15-day period to determine a 15-day rolling average of the percent of HAP (as MeOH) collected.
(9 VAC 5-80-10)
13. Steam Stripper - An alarm shall be used to signal when the monitoring parameters (the process wastewater feed rate; the steam feed rate; and the process wastewater column feed temperature of the steam stripper) drift out of the acceptable range triggering the need for prompt corrective action. The permittee shall keep a log summarizing each event (date and time of commencement and completion, parameter monitoring exceedances) and corrective action taken.
(9 VAC 5-50-50 H)
14. The computer system used to continuously monitor each vent of the Non-Condensable Gas Collection System shall be equipped with an alarm to alert the operator when a release has occurred.
(9 VAC 5-50-50 H)
15. The RTO shall be equipped with a device to continually measure and record the temperature. There shall be an alarm system that sounds if the RTO temperature falls below 871°C (1600°F).
(9 VAC 5-60-100 and 9 VAC 5-80-110)
16. The TRS scrubber shall be equipped with devices to continuously measure and record:
 - a. the flow of make-up white liquor to the scrubber (3-hr rolling average),
 - b. the pressure drop across the scrubber (3-hr rolling averaging),
 - c. the pressure at the white liquor nozzle (3-hr rolling averaging), and;

- d. any by-passing of scrubber.

An alarm shall be connected to the bypass valve to alert if the scrubber is by-passed. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the scrubber is operating.

(9 VAC 5-80-110, 9 VAC 5-50-20 C)

17. TRS Scrubber - The permittee shall establish an acceptable range for each parameter based on stack test results, good engineering judgment and experience so that a minimum TRS control efficiency of 67% shall be maintained. An alarm shall be used to signal when parameters drift out of the acceptable range triggering the need for prompt corrective action. The permittee shall keep a log summarizing each event (date and time of commencement and completion, parameter monitoring exceedances) and corrective action taken.
(9 VAC 5-50-50 H)
18. Control Efficiency - The TRS scrubber shall maintain a control efficiency for TRS of no less than 67% as demonstrated during stack testing and on a 12-month rolling average basis. The average annual control efficiency for the scrubber shall be calculated using the following equation:

$$ACE = CE \left[\frac{LVHCg - Sd}{LVHCg} \right]$$

Where:

ACE = Annual Control Efficiency

CE = Stack Test Demonstrated Control Efficiency (most recent)

LVHCg = time that LVHC gases are generated during 12-month period

Sd = time that the Scrubber is down or malfunctioning during same period

Malfunction = any time a parameter falls outside the acceptable range

If the ACE is calculated to be below 67%, this could mean that there has been a PSD violation. Further review may be necessary.

(9 VAC 5-80-110)

C. Recordkeeping and Reporting

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Department. These records shall include, but are not limited to:
- Records of black liquor solids firing rates in tons/day for all recovery furnaces.
 - Number of minutes each venting system vents from the NCG collection system to the atmosphere and all TRS event minute records.
 - Stack test data for the Recovery Furnace Units and the Smelt Dissolving Tank Units.
 - Records of monitoring parameter ranges established for each Smelt Dissolving Tank Scrubber.
 - Records of Smelt Dissolving Tank Scrubber parameter monitoring data, including any period when the parameter levels were inconsistent with the parameter's established operating range, with a brief explanation of the cause of the deviation, the time the deviation occurred, the time corrective action was initiated and completed, and the corrective action taken.
 - Records and document of supporting calculations for compliance determinations made under 40 CFR 63.865(a) through (e).
 - Annual feed rate of condensate to the stripper.

- h. Daily monitoring of the percent of HAP (as MeOH) collected and the 15 day rolling average.
- i. Daily amount of Oven Dried Tons Pulp processed. (This is only necessary when compliance is based on the 10.2 pounds per Oven Dried Ton of Pulp limit.)
- j. Daily amount of HAPs (as MeOH) sent to the stripper. (This is only necessary when compliance is based on the 10.2 pounds per Oven Dried Ton of Pulp limit.)
- k. Daily amount of HAPs (as MeOH) removed by stripper. (This is only necessary when compliance is based on the 10.2 pounds per Oven Dried Ton of Pulp limit.)
- l. Monthly visual observation logs of the LVHC and HVLC closed vent collection systems including the information specified in 40 CFR 63.454(b).
- m. RTO temperature data/records.
- n. Annual monitoring of the condensate collection tank, condensate closed collection system, closed-vent systems.
- o. Continuous monitoring system calibrations and equipment checks, percent operating time, and resultant excess emissions.
- p. Average parametric monitoring data to prove control efficiency and the parametric drift logs of the TRS scrubber.
- q. Annual control efficiency for the TRS scrubber, calculated monthly as the average of each consecutive 12-month period.
- r. All fuel supplier certifications.
- s. Operation and control device monitoring records for the NCG collection system and the stripper.
- t. Scheduled and unscheduled maintenance and operator training of air pollution control equipment, monitoring devices, and process equipment which affect emissions.
- u. Initial and continuing compliance testing.
- v. TRS emissions corrected to 8% O₂ from the Recovery Furnace Units, calculated daily as the average of each 24-hour period.
- w. Records of visual evaluations, visible emissions evaluations and any corrective action taken.
- x. The permittee must maintain records of any occurrence when corrective action is required under 40 CFR 63.864(k)(1)(ii), and when a violation is noted under 40 CFR 63.864(k)(2)(i) or (iii).

These records shall be available at the facility for inspection by the Department and shall be current for the most recent 5 years.

(9 VAC 5-80-110, 40 CFR 63.866)

- 2. The permittee shall furnish written reports to the Department of excess TRS emissions from any process (CRE-01, CRE-02 and CRE-03) monitored by a continuous monitoring system (CEMS) on a quarterly basis, postmarked no later than the 30th day following the end of the calendar quarter. These reports shall include, but are not limited to the following information:
 - a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;
 - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;
 - c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

- d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.
(9 VAC 5-40-50 C and 9 VAC 5-80-110)
- 3. a. The permittee shall furnish written quarterly reports to the Department of the following:
 - (1) Any instances of corrective action required to be implemented (in accordance with 40 CFR 63.864(k)(1)(i) and (ii) of Subpart MM) for any Smelt Dissolving Tank monitored parameter or
 - (2) Any recovery furnace COMS exceedance.
- b. This report must contain the information specified in 40 CFR 63.10(c) of as well as the number and duration of occurrences when the source met or exceeded the conditions in 63.864(k)(1), and the number and duration of occurrences when the source met or exceeded the conditions in §63.864(k)(2). Reporting excess emissions below the violation thresholds of 40 CFR 63.864(k) does not constitute a violation of the applicable standard.
- c. When no exceedances of parameters have occurred, the owner or operator must submit a semiannual report stating that no excess emissions occurred during the reporting period.
- d. Quarterly and semiannual reports are to be postmarked no later than the 30th day following the end of the calendar quarter and semiannual period, respectively.
(9 VAC 5-80-110 and 40 CFR 63.867(c))
- 4. The permittee shall submit excess emissions and continuous monitoring system reports (for the condensate collection system and the LVHC and HVLC closed-vent collection systems) as described in Condition V.C.2.
(9 VAC 5-80-110, 9 VAC 5-50-50)
- 5. The permittee shall comply with the additional reporting requirements for HAP Metals standards as specified in 40 CFR 63.867(b) within 180 days of the event that triggers this notification.
(9 VAC 5-80-110 and 40 CFR 63.867(b))

D. Testing

- 1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-40-30 and 9 VAC 5-80-110)
- 2. The permittee shall perform a stack test once each permit term on each Recovery Boiler Unit (CRE-01, 02, and 03) to prove compliance with the particulate emission standard.
(9 VAC 5-80-110)
- 3. The permittee shall perform a stack test once each permit term on each Smelt Dissolving Tank Unit (CRE-04, 05 and 06) to prove compliance with the particulate emission standard and the TRS emission standard.
(9 VAC 5-80-110)
- 4. Each enclosure and closed-vent system shall demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in 63.457(e) of 40 CFR Part 63, Subpart S.
(9 VAC 5-80-110)
- 5. Each positive pressure closed-vent system shall demonstrate no detectable leaks as specified in 63.450(c) of 40 CFR Part 63, Subpart S measured initially and annually by procedures in 63.457(d) of 40 CFR Part 63, Subpart S.
(9 VAC 5-80-110)
- 6. The permittee shall have established operating ranges for each Smelt Dissolving Tank Scrubber CPMS in accordance with either 40 CFR 63.864(j)(1) or (2).
(9 VAC 5-80-110 and 40 CFR 63.864(j))

7. Annual stack tests to prove compliance with condition VII.B.17 & B.18 shall be performed on the TRS scrubber for the LVHC non-condensable gases for 3 consecutive years after start-up. (This includes the initial testing and two subsequent years of data.) The details of the tests shall be arranged with the Department. These stack test results shall be submitted to the Department within 60 days after test completion and shall conform to the test report format enclosed with this permit. After receiving the results from these stack tests the Department may reduce the frequency of future continuous compliance stack testing of the scrubber upon request by the permittee.
 (9 VAC 5-50-30 G)
8. If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods or other approved 40 CFR Part 60, Appendix A tests in accordance with procedures approved by the Department as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25A, 25B
VOC Content	EPA Methods 24, 24a
NO _x	EPA Method 7, 7A, 7B, 7C, 7D, 7E
SO ₂	EPA Method 6, 6C
CO	EPA Method 10, 10B
PM/PM-10	EPA Method 5, 17
Visible Emission	EPA Method 9, 9 (Alternate Method 1- LIDAR)
Methanol	EPA Method 308, NCASI Method DI/MEOH-94.03
VOC Leak Check	EPA Method 21
TRS	EPA Method 15, 15A, 16A, 16B

(9 VAC 5-80-110)

VIII. Bleach Plant Process Area

The emission units associated with this section of the permit are the following:

Unit ID	Emission Unit Description	Unit ID	Emission Unit Description
BLP01	D Bleach Line	BLP04	O ₂ Blend Chest
	Washer Hoods		O ₂ -1 Washers and Filtrate Tank
	D1 Tower		O ₂ -2 Washers and Filtrate Tank
	D2 Tower		Twin Roll Presses
	DD1 Seal Tank		Pressate Level Tank
	DD2 Seal Tank		Hold Tank
	E1 & E2 Seal Tanks		O ₂ Pressate Tank
	CO Seal Box		O ₂ Blend Chest
BLP02	E Bleach Line	BLP05	O ₂ Blow Tank
	Washer Hoods		F Bleach O₂ Delignification
	D Tower	BLP06	High Density Storage Tanks
	D Seal Tank		#1 Hi density chest
	DO Seal Tank		#2 Hi density chest
	E Seal Tank		#3 Hi density chest
	E Tower		#4 Hi density chest
	DO Tower		#40 Hi density chest
BLP03	DO Blend Chest	BLP07	Stock Chests
	F Bleach Line		#38 Stock chest
	Acid presses		#39 Stock chest
	Washer Hoods		#41 Stock chest
	Acid Stock Post O ₂ Surge Tank		#43 Stock chest
	D Tower		#38 Stock chest
	D Seal Tank	BLP08	#44 Stock chest
	E Seal Tank		SVP Plant
	Z Tower		Tailgas scrubber
	Z Seal Tank		Condenser
	#1 & #2 Composition Separator	BLP09	R3 Plant
	#1-5 Ozone Generator		2 pipe vents
BLP04	Oxygen Gas Cooler		2 storage tanks
	E Bleach O₂ Delignification		

A. Limitations

- Chlorinated HAP emissions from each stage of each bleach line (BLP-01, BLP-02, BLP-03) where chlorinated compounds are introduced shall be controlled by a collection and scrubber system. Each collection and scrubber system shall be provided with adequate access for inspection and shall be in operation when its corresponding bleach line is operating.
(9 VAC 5-80-110)
- The bleach plant collection system for each bleach line (BLP-01, BLP-02, BLP-03) shall be a closed vent system routed to a scrubber. All emissions from the scrubbers shall meet an outlet concentration of 10 ppm or less by volume of total chlorinated HAP (40 CFR 63.445(c)(2)).
(9 VAC 5-80-110, 40 CFR 63.445(c)(2), 40 CFR 63.450)
- Each bleach plant collection and scrubber system shall be operated in compliance with the requirements of 40 CFR 63.450 and 40 CFR 63.453.
(9 VAC 5-80-110, 40 CFR 63.450, 40 CFR 63.453)
- To comply with 40 CFR 63.443(a)(1) the facility shall control the HAP emissions from the following equipment systems:
 - E-Bleach Line O₂-1 Washers and Filtrate Tank.
 - E-Bleach Line O₂-2 Washers and Filtrate Tank.

- c. E-Bleach Line East and West Twin Roll Press.
- d. E-Bleach Line O₂ System Blow Tank, Blend Chest, and Pressate Level Tank.

The collection of HVLC system gases shall include the gases from the units listed in a-d above.
(9 VAC 5-60-100 and 9 VAC 5-80-110)

5. The HVLC gases from the E-Bleach Line O₂-1 Washers and Filtrate Tank, the E-Bleach Line O₂-2 Washers and Filtrate Tank, the E-Bleach Line East and West Twin Roll Press, and the E-Bleach Line O₂ System Blow Tank, Blend Chest, and Pressate Level Tank Vents shall be collected by a closed vent system and routed to the Regenerative Thermal Oxidizer for destruction.
(9 VAC 5-60-100 and 9 VAC 5-80-110)
6. The RTO used to reduce total HAP emissions shall be designed and operated at a minimum temperature of 871°C (1600°F) and a minimum residence time of 0.75 seconds.
(9 VAC 5-60-100 and 9 VAC 5-80-110)
7. The process condensates shall be collected from each HVLC collection system listed in condition A.4 above.
(9 VAC 5-60-100 and 9 VAC 5-80-110)
8. The HVLC collection system condensates shall be conveyed in a closed collection system which meets the individual drain system requirements specified in 63.960, 63.961, and 63.962 of 40 CFR Part 63, Subpart RR except for closed vent systems and control devices shall be designed and operated in accordance with 63.443(d) and 63.450, instead of in accordance with 63.693 as specified in 63.962(a)(3)(ii), (b)(3)(ii)(A), and (b)(5)(iii).
(9 VAC 5-60-100 and 9 VAC 5-80-110)
9. The condensate collection tank shall have a fixed roof and all openings shall be designed and operated with no detectable leaks as indicated by an instrument reading of <500 ppm VOC (Method 21) above background and vented into a closed-vent system meeting the requirements of 63.450 and routed to a control device that meets the requirements of 63.443(d). Each opening shall be maintained in a closed, sealed position at all times that the tank contains pulping condensates or HAPs except when it is necessary to use the opening for sampling, removal, or for equipment inspection, maintenance, or repair.
(9 VAC 5-60-100 and 9 VAC 5-80-110)
10. The process condensates shall be treated by the stripper. The treatment of the condensates by the stripper must reduce the total HAPs by either ≥92% by weight or remove 10.2 pounds per Oven Dried Ton of Pulp. Each HAP removed from the process condensate streams during treatment and handling by stripper shall be enclosed and vented into a closed vent system (the Non-Condensable Collection System (NCG)) and routed to power boilers #6 or #7 for destruction. The enclosures and closed vent systems must meet the requirements of 63.443(d)(4) and 63.450 of 40 CFR Part 63, Subpart S.
(9 VAC 5-80-110)
11. Negative Pressure Enclosures – Each enclosure shall maintain negative pressure at each enclosure or hood opening. Each enclosure or hood opening closed during the initial performance test specified in 40 CFR 63.457(a) shall be maintained in the same closed and sealed position as during the performance test at all times except when necessary to use the opening for sampling, inspection, maintenance or repairs.
(9 VAC 5-60-100 and 9 VAC 5-80-110)
12. Positive Pressure Components - Each component of the closed-vent system used to comply with 40 CFR 63.443(c), 63.444(b), and 63.445(b) that is operated at a positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500ppmv above background as measured by the procedures specified in 40 CFR 63.457(d).
(9 VAC 5-60-100 and 9 VAC 5-80-110)

13. Except where this permit is more restrictive than the applicable requirement, the MACT equipment BLP-01, BLP-02 and BLP-03 shall be operated in compliance with the requirements of 40 CFR 63, Subpart S. Compliance with the conditions of this permit that address MACT I, Phase 2 (HVLC gas collection and destruction) requirements shall be achieved no later than April 17, 2007.
(9 VAC 5-80-110, 40 CFR 63.440(d))
14. Excess Emissions - Periods of excess emissions reported under 40 CFR 63.455 shall not be a violation of 40 CFR 63.443 (c) and (d) provided that the time of excess emissions (excluding periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed the following levels: (40 CFR 63.443(e))
 - a. One percent for control devices used to reduce the total HAP emissions from the LVHC system; and
 - b. Four percent for control devices used to reduce the total HAP emissions from the HVLC system; and
 - c. Four percent for control devices used to reduce the total HAP emissions from both the LVHC and HVLC systems.
(9 VAC 5-80-110)
15. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - b. Maintain an inventory of spare parts.
 - c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
 - d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.
Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to Department personnel upon request.
(9 VAC 5-80-110)

B. Monitoring

1. Each bleach plant collection and scrubber system shall be equipped with a device to continuously measure and record: the pH of the gas scrubber effluent; the gas scrubber liquid influent flow rate; and the operation of the fan motor for the vent gas flow (low speed alarm). Monitoring shall be done using 3-hour rolling averages for the pH and the liquid flow rate. Monitoring shall be done continuously on the fan operation. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the bleach lines and scrubbers are operating.
(9 VAC 5-80-110, 40 CFR 63.446(c)(2))
2. Gas Scrubbers - An alarm shall be used to signal when the monitoring parameters (the pH of the gas scrubber effluent, the gas scrubber liquid influent flow rate, and the operation of the fan motor for the vent gas flow (low speed alarm) drift out of the acceptable range triggering the need for prompt corrective action. The permittee shall keep a log summarizing each event (date and time of commencement and completion, parameter monitoring exceedances) and corrective action taken.
(9 VAC 5-80-110)

3. If repair or replacement of the fan blades or fan motors for the vent gas to the scrubbers is required, the permittee shall furnish written notification to the Department within 14 days of the occurrence. After the repair or replacement, a new stack test shall be performed to demonstrate compliance with Condition VIII.A.2, or the permittee shall demonstrate by some other means that the gas flow rate has not increased to the scrubber as a result of the changes. The notification shall describe the nature of the work done and how permittee plans to demonstrate compliance with Condition VIII.A.2.
(9 VAC 5-80-110)
4. Each enclosure and closed vent system used to comply with Subpart S shall have a visual inspection conducted once during each calendar month, with at least 21 days elapsed time between inspections, to ensure each opening is maintained in the closed position and sealed. The permittee shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment. The inspection shall include the ductwork, piping, enclosures, and connections to covers for visible evidence of defects. An inspection log shall be kept containing the information specified in 63.454(b).
(9 VAC 5-60-100)
5. Each enclosure and closed-vent system shall demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in 63.457(e) of 40 CFR Part 63, Subpart S.
(9 VAC 5-60-100)
6. Each positive pressure closed-vent system shall demonstrate no detectable leaks as specified in 63.450(c) of 40 CFR Part 63, Subpart S measured initially and annually by procedures in 63.457(d) of 40 CFR Part 63, Subpart S.
(9 VAC 5-60-100)
7. The RTO shall be equipped with a device to continually measure and record the temperature. There shall be an alarm system that sounds if the RTO temperature falls below 871°C (1600°F).
(9 VAC 5-60-100 and 9 VAC 5-80-110)

C. Recordkeeping and Reporting

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Department. These records shall include, but are not limited to:
 - a. Monthly visual observation logs of the bleach plant and HVLC closed vent collection systems including the information specified in 63.454(b).
 - b. RTO temperature data/records.
 - c. Continuous monitoring system calibrations and calibration checks, percent operating time, and excess emissions;
 - d. Operation and control device monitoring records for the bleach plant scrubbers; and
 - e. Scheduled and unscheduled maintenance and operator training of air pollution control equipment, monitoring devices, and process equipment that affects emissions.
 - f. Initial and continuing compliance testing.

These records shall be available at the facility for inspection by the Department and shall be current for the most recent 5 years.

(9 VAC 5-80-110)

2. The permittee shall submit excess emissions and continuous monitoring system (for the bleach plant scrubber parameters and the HVLC closed-vent collection system) reports as described in Condition V.C.2.
(9 VAC 5-80-110 and 9 VAC 5-50-50)

3. The permittee shall furnish written notification to the Department of any changes to the source of shower water for the F-Bleach Line O₂ System. The current sources of shower water are hot fresh water, F-Bleach Line Z stage filtrate or stripped condensate. In addition, the permittee shall notify the Department when any changes occur at the facility (e.g., operational or process changes, operating scenario changes, etc.) that could potentially increase the amount of HAP in the process waters for the deckers above the 400 ppm HAP (as methanol) threshold.
(9 VAC 5-80-110)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing stack or duct that is free from cyclonic flow. Test ports shall be provided when requested at the appropriate locations in accordance with the 40 CFR Part 63.457.
(9 VAC 5-80-110)
2. Each enclosure and closed-vent system shall demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in 63.457(e) of 40 CFR Part 63, Subpart S.
(9 VAC 5-60-100 and 9 VAC 5-80-110)
3. If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods or other approved 40 CFR Part 60, Appendix A tests in accordance with procedures approved by the Department as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25A, 25B
VOC Content	EPA Methods 24, 24a
CO	EPA Method 10, 10B
Chlorine	EPA Method 26A

(9 VAC 5-80-110)

IX. Paper Mill Process Area

The emission units associated with this section of the permit are the following:

Unit ID	Emission Unit Description	Unit ID	Emission Unit Description
PRM01	No. 1 Paper Machine	PRM04	No. 4 Paper Machine
	Secondary Screen Feed Tank (2)		Fourdrinier vents (2)
	Vents (3)	PRM05	No. 5 Paper Machine
	Ceiling Vents (9)	PRM06	No. 6 Paper Machine
	Air Knife Coater Vent		No. 6 PM Vacuum Pump Exhaust (2)
	Coater Section Hoods (4)	PRM07	100 Ton Broke Chest
PRM02	No. 2 Paper Machine	PRM09	No. 1 Wet End Starch silo
PRM03	No. 3 Paper Machine	PRM10	No. 2 Wet End Starch silo
	No. 3 PM Vacuum Pump Exhaust	PRM11	Bleached Stock LD Storage

A. Limitations

1. Starch emissions from the two storage silos (PRM-09 and PRM-10) shall be controlled by fabric filters. The fabric filters shall be provided with adequate access for inspection.
(9 VAC 5-80-110)
2. Starch emissions from the railcar unloading system shall be controlled by a closed system. The closed system shall be provided with adequate access for inspection.
(9 VAC 5-80-110)
3. Visible emissions from the fabric filters (PRM-09 and PRM-10) shall not exceed 5% opacity.
(9 VAC 5-80-110)
4. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - b. Maintain an inventory of spare parts.
 - c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
 - d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to Department personnel upon request.
(9 VAC 5-80-110)

B. Monitoring

1. The permittee shall perform visual evaluations of each stack once each time the silos are loaded, unless unloading takes place at night, for compliance with opacity standards for Emission Units PRM-09 and PRM-10. If such periodic evaluations indicate any opacity condition, the permittee shall take appropriate action to correct the cause of the opacity such that no visible emissions exist. If such corrective action fails to correct the problem, the permittee shall conduct a visible emissions evaluation (VEE) utilizing EPA Method 9 (reference 40 CFR 60, Appendix A). The permittee shall maintain a log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the loading took place at night and VEE was not possible, this should be noted in the logbook. The logbook shall be kept at the facility and available for inspection by the Department for the most recent 5-year period.
(9 VAC 5-80-110)

C. Recordkeeping and Reporting

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Department. These records shall include, but are not limited to records of visible evaluations, visible emission evaluations and any corrective action taken. These records shall be available for inspection by the Department, and shall be current for the most recent 5 years.
(9 VAC 5-80-110,)
2. In order to minimize the duration and frequency of excess emissions due to malfunctions of process equipment or air pollution control equipment for the starch silos (PRM-09 and PRM-10), the permittee shall:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance. These records shall be maintained at the facility for a period of 5 years and shall be made available to Department personnel upon request.
 - b. Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment breakdowns.
(9 VAC 5-80-110)
3. The permittee shall have available written operating procedures for the related air pollution control equipment for the starch silos (PRM-09 and PRM-10). Operators shall be trained in the proper operation of all such equipment and shall be familiar with the written operating procedures. These procedures shall be based on the manufacturer's recommendations, at minimum. The permittee shall maintain records of training provided including names of trainees, date of training and nature of training.
(9 VAC 5-80-110)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations. Test ports shall be provided at the exhaust of each fabric filters (PRM-09 and PRM-10).
(9 VAC 5-80-110)
2. If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods or other approved 40 CFR Part 60, Appendix A tests in accordance with procedures approved by the Department as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25A, 25B
VOC Content	EPA Methods 24, 24a
PM/PM-10	EPA Method 5, 17
Formaldehyde	EPA Method 18, NCASI Chilled Water Impinger Method (Tech. Bulletin 681 & 684)
Acrolein	EPA Method 18, NCASI / Weston Heated SUMMA Canister Method (Tech. Bulletin 681 & 684)
Visible Emission	EPA Method 9, 9 (Alternate Method 1- LIDAR)

(9 VAC 5-80-110)

X. Power House Process Area

The emission units associated with this section of the permit are the following:

Unit ID	Emission Unit Description	Unit ID	Emission Unit Description
PWR01	No. 5 Power Boiler	PWR05	No. 9 Power Boiler
PWR02	No. 6 Power Boiler	PWR17	No. 910 Fuel Oil Tank
PWR03	No. 7 Power Boiler	PWR18	NCG System Venting at Nos. 6 & 7 Power Boilers

A. Limitations

1. Particulate matter emissions from the #9 Power boiler or combustion turbine (PWR-05) and duct burner shall be minimized by use of natural gas.
(9 VAC 5-80-110)
2. Sulfur dioxide emissions from the turbine (PWR-05) and duct burner shall be controlled by use of low sulfur fuel – natural gas.
(9 VAC 5-80-110)
3. Nitrogen oxide (NO_x) emissions from the turbine (PWR-05) shall be controlled by low-NO_x natural gas combustors.
(9 VAC 5-80-110)
4. Nitrogen oxide emissions from the duct burner (PWR-05) shall be controlled by low-NO_x burners.
(9 VAC 5-80-110)
5. Nitrogen oxide emissions from the turbine (PWR-05) and duct burner shall be controlled by selective catalytic reduction (SCR).
(9 VAC 5-80-110)
6. Carbon monoxide and volatile organic compound emissions from the turbine (PWR-05) and duct burner shall be controlled by oxidation catalyst and good combustion practices.
(9 VAC 5-80-110)
7. Formaldehyde emissions from the turbine (PWR-05) shall be controlled by good combustion practices.
(9 VAC 5-80-110)
8. Ammonia slip from the SCR (PWR-05) shall be controlled by good process control instrumentation and proper ammonia distributor grid configuration.
(9 VAC 5-80-110)
9. Except as specified in this permit, the turbine (PWR-05) and duct burner are to be operated in compliance with Federal emissions requirements under 40 CFR 60, Subpart GG.
(9 VAC 5-80-110)
10. The SCR unit shall operate at all times that the turbine (PWR-05) is operating, except during startup, shutdown, and malfunctions. During turbine startup, the permittee shall begin use of SCR (commence ammonia injection) within 2 hours of the initial turbine firing, or when the temperature of the catalyst bed reaches a suitable predetermined temperature level, whichever occurs first. During turbine shutdown, the permittee shall discontinue use of the SCR (discontinue ammonia injection) when the temperature of the catalyst bed drops below a predetermined temperature level, but not more than 2 hours prior to the time at which the fuel feed to the turbine is discontinued. The permittee shall operate the facility in a manner so as to optimize the effectiveness of the SCR units while minimizing ammonia slip.
(9 VAC 5-80-110)

11. The storage tank (PWR-10: No. 910 Fuel Oil Storage) may be subject to 40 CFR 60, Subpart Kb if the VOC liquid stored in it has a maximum true vapor pressure ≥ 3.5 kPa. The permittee is authorized to store any liquid as long as the maximum true vapor pressure does not equal or exceed 3.5 kPa. If a VOC liquid with a maximum true vapor pressure ≥ 3.5 kPa will be stored, the permittee will notify the Department in writing within 10 days of material transfer into tank and keep the necessary records to meet Subpart Kb.
(9 VAC 5-80-110)
12. Visible emissions from the turbine (PWR-05) with and without the duct burner firing shall not exceed 15% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110)
13. Nitrogen Dioxide emissions from the #6 power boiler (PWR-02) shall be controlled by combustion techniques to include using an over fire air system.
(9 VAC 5-80-110)
14. Carbon Monoxide emissions from the #6 power boiler (PWR-02) shall be controlled by good combustion practices.
(9 VAC 5-80-110)
15. Sulfur Dioxide emissions from the #6 power boiler (PWR-02) shall be controlled by the use of low sulfur coal and wood.
(9 VAC 5-80-110)
16. Particulate emissions from the #5, #6 & # 7 power boilers (PWR-01, PWR-02 and PWR-03) shall be controlled by the use of electrostatic precipitators. The ESPs shall be provided with adequate access for inspection and shall be in operation when the respective boiler is operating.
(9 VAC 5-80-110)
17. Visible emissions from the #6 power boiler (PWR-02) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110)
18. Emissions from the operation of the fuel burning equipment installation (PWR-01 and PWR-03, combined) shall not exceed the limits specified below:

Particulate Matter	0.1984 lbs/mmBtu
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The emission ratio in lbs/million Btu input shall be determined by the following equation: $E = 1.0906H^{-0.2594}$, where H is the total rated capacity in millions of Btu/hr.
(9 VAC 5-40-900A and 9 VAC 5-80-110)
19. Emissions from the operation of the #5 power boiler (PWR-01) shall not exceed the following limit:

Particulate Matter	60 lb/hr
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The emission rates shall be proposed by the owner and may not be changed without consent of the board.
(9 VAC 5-40-910D and 9 VAC 5-80-110)
20. Emissions from the operation of the #7 power boiler (PWR-03) shall not exceed the following limit:

Particulate Matter	81.5 lb/hr
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The emission rates shall be proposed by the owner and may not be changed without consent of the board.
(9 VAC 5-40-910D and 9 VAC 5-80-110)

21. Emissions from the operation of the fuel burning equipment installation (PWR-01 and PWR-03, combined) shall not exceed the following limit:
- | | |
|----------------|--------------|
| Sulfur Dioxide | 1,882 lbs/hr |
|----------------|--------------|
- The emission rate in lbs/hr shall be determined by the following equation: $S = 2.64K$, where S = allowable emission of sulfur dioxide expressed in pounds per hour, and K = heat input at total rated capacity expressed in million Btu per hour.
(9 VAC 5-40-930 A and 9 VAC 5-80-110)
22. Visible emissions from each of the #5 and #7 power boilers (PWR-01 and PWR-03) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity.
(9 VAC 5-40-940 and 9 VAC 5-80-110)
23. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment from the power boilers (PWR-05) monitoring devices, and process equipment which affect such emissions:
- Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - Maintain an inventory of spare parts.
 - Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
 - Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.
- Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to Department personnel upon request.
(9 VAC 5-80-110)

B. Monitoring

- Continuous emissions monitoring data from #9 power boiler (PWR-05) on nitrogen oxide shall directly determine compliance with emission limits on a 30-day rolling average basis, with any one hour average not exceeding 0.2 pounds per million Btu, except during the 2-hr startup or shutdown periods described in Condition A.10 of this section. Minimum data capture, quality assurance, and reporting requirements of NSPS 40 CFR 60.13, 60.48b(f), and 60.49b shall apply.
(9 VAC 5-80-110, 40 CFR 60.13, 60.48, 60.49)
- Continuous emissions monitoring data from #9 power boiler (PWR-05) for carbon monoxide shall be used as an indicator of compliance with emission limits on a 30-day rolling average basis. Minimum quality assurance of NSPS 40 CFR 60.13 shall apply. The same reporting requirements as specified for nitrogen oxides under NSPS 40 CFR 60.49b shall apply.
(9 VAC 5-80-110)
- Continuous monitoring data for opacity from #9 Power boiler (PWR-05) shall be used as an indicator of compliance with condition A.12 of this section. Quality assurance and reporting requirements of NSPS 40 CFR 60.13 and 60.49b shall apply.
(9 VAC 5-80-110)

4. Continuous monitoring systems shall be installed on #9 Power boiler (PWR-05) to measure and record percent opacity (as specified by 40 CFR Part 60, Subpart Db), and the concentrations of nitrogen oxides and carbon monoxide emissions. Continuous monitors shall be co-located with O₂ monitors, and shall be maintained, located, and calibrated in accordance with approved procedures (ref. 40 CFR 60.13). A 30-day notification, prior to the demonstration of each continuous monitoring system's performance, and subsequent notifications shall be submitted to the Department.
(9 VAC 5-80-110)
5. A continuous opacity monitoring system (COMS) may be used on #6 power boiler (PWR-02) to satisfy the visible emission evaluation requirement in lieu of 40 CFR, Part 60, Appendix A, Method 9. The reported test data shall include averages of all six-minute continuous periods within the test period. It is the responsibility of the permittee to demonstrate that the COMS has met the requirements of the applicable performance evaluation, that the COMS has been properly maintained and operated, and that the resulting data has not been altered in any way. If COMS data indicates compliance for a period during which Method 9 data indicates non-compliance, the Method 9 data shall be used to determine compliance with the visible emission limit.
(9 VAC 5-80-110)
6. For the #6 power boiler (PWR-02) a CEMS/COMS quality control program which meets the requirements of 40 CFR 60.13 and Appendix B or F shall be implemented for all continuous monitoring systems, except that Relative Accuracy Test Audits (RATA's) may be required less frequently if approved by the Department.
(9 VAC 5-80-110)
7. CEMS used to quantify emissions for cap compliance purposes per Condition IV.F.5. and meeting the design specifications of 40 CFR Part 60, Appendix B, shall be installed to measure and record the stack flow rate and the emissions of NO_x, SO₂ and CO from the #5, #6 and #7 power boilers as ppmv. The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with the Department's approved procedures. The flue gas flow monitors shall be installed, calibrated and audited using Appendix A of Part 75 as a guide. A Quality Assurance/Quality Control Plan shall be developed for the CEMS using the requirements of 40 CFR 60.13 and Appendices B and F as a guide. The plan shall be approved by the Department. Data shall be reduced to one-hour averages. The SPAN VALUE for each pollutant monitor shall be a value that is approved by the Department and if required by the Department a dual span monitor may be required for SO₂ on #6 & #7 power boilers. Records shall be kept for five years and shall be available for inspection.
(9 VAC 5-80-110)
8. On #6 power boiler (PWR-02) a Continuous Emission Monitoring System, meeting the design specifications of 40 CFR Part 75 Subpart H shall be installed to measure and record the emissions of NO_x from the stack as lb/hr corrected to 7% O₂ or 12% CO₂. The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with the requirements of 40 CFR Part 75 Subpart H.
(9 VAC 5-80-110)
9. A continuous opacity monitoring system shall be used on power boilers #5, #6, and #7 (PWR01, 02, and 03) to satisfy the visible emission evaluation requirement in lieu of 40 CFR, Part 60, Appendix A, Method 9. If monitoring system data indicates compliance for a period during which Method 9 data indicates non-compliance, the Method 9 data shall be used to determine compliance with the visible emission limit.
(9 VAC 5-50-20 and 9 VAC 5-80-110)

C. Recordkeeping and Reporting

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Department. These records shall include, but are not limited to:
 - a. Dimensions of the storage vessel (PWR-10 [910 Fuel Oil Tank]) and an analysis showing the capacity of the storage vessel. These records shall be kept for the life of the storage vessel.

- b. For each NO_x, CO and SO₂ CMS on #5, #6 & #7 power boilers, the permittee shall maintain all required QA/QC records and make these records available upon request or inspection
- c. Results of all stack tests, visible emission evaluations and performance evaluations.
- d. Continuous monitoring system data, calibrations and calibration checks, percent operating time, and excess emissions;
- e. Scheduled and unscheduled maintenance and operator training.

These records shall be available at the facility for inspection by the Department and shall be current for the most recent 5 years.

(9 VAC 5-80-110)

- 2. The permittee shall furnish written reports to the Department of excess emissions from any process monitored by a continuous monitoring system (COMS (PWR-01, PWR-02, PWR-03, PWR-05)/CEMS (PWR-05)) on a quarterly basis (or semi-annual basis if applicable see Regulations 9 VAC 5-40-50 and 9 VAC 5-50-50), postmarked no later than the 30th day following the end of the calendar quarter. These reports shall include, but are not limited to the following information:
 - a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, the date and time of commencement and completion of each period of excess emissions and, the process operating time during the reporting period;
 - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;
 - c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
 - d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.(9 VAC 5-40-50 C and 9 VAC 5-80-110)
- 3. The permittee shall perform reporting and recordkeeping for #9 Power boiler (PWR-05) in accordance with all the applicable requirements of 40 CFR Part 60, Subpart GG.
(9 VAC 5-80-110)

D. Testing

1. The permittee shall perform an acceptable stack test once each permit term on each Power Boiler #5 and #7 (PWR-01 and PWR-03) to prove compliance with the particulate emission standard.
(9 VAC 5-80-110)
2. If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods or other approved 40 CFR Part 60, Appendix A tests in accordance with procedures approved by the Department as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25A, 25B
VOC Content	EPA Methods 24, 24A
NO _x	EPA Method 7, 7A, 7B, 7C, 7D, 7E
SO ₂	EPA Method 6, 6A, 6B, 6C
CO	EPA Method 10, 10B
PM/PM-10	EPA Method 5, 17
Visible Emission	EPA Method 9, 9 (Alternate Method 1- LIDAR)
Formaldehyde	EPA Method 18
Sulfuric Acid Mist	EPA Method 8

(9 VAC 5-80-110)

XI. Miscellaneous Process Areas

The emission units associated with this section of the permit are the following..

Unit ID	Emission Unit Description	Unit ID	Emission Unit Description
MIS01	Paved Roads	MIS04	Waste Paper Baler
MIS02	Unpaved roads	MIS08	Regenerative Thermal Oxidizer (RTO)
MIS03	Refrigeration systems	MIS09	Multiple No. 2 Fuel Oil Combustion Emission Units

A. Limitations

1. No owner or other person shall cause or permit to be discharged into the atmosphere from the sheet plant waste paper baler (MIS-04) any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity. Failure to meet the requirements of this condition because of the presence of water vapor shall not be a violation of this condition.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

B. Monitoring and Recordkeeping

1. The permittee shall perform periodic visual evaluations of the waste paper baler (MIS-04) once each calendar week. If such periodic evaluations indicate any opacity condition, the permittee shall take appropriate action to correct the cause of the opacity such that no visible emissions exist. If such corrective action fails to correct the problem, the permittee shall conduct a visible emissions evaluation (VEE) utilizing EPA Method 9 (reference 40 CFR 60, Appendix A). The permittee shall maintain a log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the equipment has not been operated during the week, it shall be noted in the logbook that the equipment was not operated and that a visual observation was not required. The logbook shall be kept at the facility and available for inspection by the Department for the most recent 5 year period.
(9 VAC 5-80-110 E)

XII. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
WDY03	Log unloading	9 VAC 5-80-720 B	PM-10	
WDY04	Log pile	9 VAC 5-80-720 B	PM-10	
WDY05	Log loading- log pile to slasher	9 VAC 5-80-720 B	PM-10	
WDY07	Short log transport- slasher/debarker/chipper	9 VAC 5-80-720 B	PM-10	
WDY09	Chip transport - chippers to pile	9 VAC 5-80-720 B	PM-10	
WDY10	Chip transport - purchased chips and saw dust to pile	9 VAC 5-80-720 B	PM-10	
WDY-11	Bark transport - debarker to power plant	9 VAC 5-80-720 B	PM-10	
WDY-12	Chip piles	9 VAC 5-80-720 B	PM-10	
WDY-13	Chip loading- trucks to chip pit	9 VAC 5-80-720 B	PM-10	
WDY-15	Chip reclaiming - chip pile screening/rechipping	9 VAC 5-80-720 B	PM-10	
WDY-17	Chip transport - screens to silos	9 VAC 5-80-720 B	PM-10	
WDY-18	Fuel transport - fuel pile to power plant	9 VAC 5-80-720 B	PM-10	
WDY-19	Chip transport - silos to digester	9 VAC 5-80-720 B	PM-10	
UPM-22	K1 Chip cyclone	9 VAC 5-80-720 B	PM-10	
UPM-23	K2 Chip cyclone	9 VAC 5-80-720 B	PM-10	
UPM-24	310 Chip conveyor	9 VAC 5-80-720 B	PM-10	
UPM-25	Batch digester chip bin system	9 VAC 5-80-720 B	PM-10	
UPM26	D Wash HVLC System Venting	9 VAC 5-80-720 B	TRS,VOC, Methanol	
UPM27	Batch Digester Blow Heat System LVHC Venting	9 VAC 5-80-720 B	TRS,VOC, Methanol	
UPM28	Continuous Digester LVHC System Venting	9 VAC 5-80-720 B	TRS,VOC, Methanol	
UPM29	K1 & K2 Chip Bin LVHC System Venting	9 VAC 5-80-720 B	TRS,VOC, Methanol	
CRE-14	Soap storage	9 VAC 5-80-720 B	TRS,VOC	
CRE-15	Pulping process condensate collection tank	9 VAC 5-80-720 B	TRS,VOC, Methanol	
CRE-20	Evaporators Venting	9 VAC 5-80-720 B	TRS,VOC, Methanol	
CRE-21	BLOX HVLC Gas Collection System Venting	9 VAC 5-80-720 B	TRS,VOC, Methanol	
BLP-10	Unloading station	9 VAC 5-80-720 B	Pending	
BLP11	E Oxygen Delignification HVLC Gas System Venting	9 VAC 5-80-720 B	TRS,VOC, Methanol	
PRM08	Cook Room	9 VAC 5-80-720 B	Pending	
PRM-12	Lube oil storage tank	9 VAC 5-80-720 B	VOC	
PWR-06	Wood fuel handling	9 VAC 5-80-720 B	PM-10	1600+ tons per day
PWR-07	Coal handling (related to PWR 01, 02, 03)	9 VAC 5-80-720 B	PM-10	
PWR-08	Ash Handling (related to PWR 01, 02, 03)	9 VAC 5-80-720 B	PM-10	
PWR-09	Lube oil systems	9 VAC 5-80-720 B	VOC	
PWR-10	Oil storage	9 VAC 5-80-720 B	VOC	
PWR-11	Peanut hull conveyance	9 VAC 5-80-720 B	PM-10	7.5 ton/hr

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
WWT-04	pH adjustment and TRS control	9 VAC 5-80-720 B	H ₂ S, TRS	0.92 x 10 ⁶ gpd
FRP-01	Fiber recycling plant	9 VAC 5-80-720 B	VOC	
MIS-05	Maintenance parts washer	9 VAC 5-80-720 B	VOC	
MIS-06	Gasoline storage tank	9 VAC 5-80-720 B	VOC	

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

XIII. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements, which have been specifically identified, as being not applicable to this permitted facility:

Citation	Brief description of requirement	Why the requirement does not apply
9 VAC 5-40-1770 B. 2, 9 VAC 5-40-1780 B. 4. and 9 VAC 5-40-1780 C.3	Requirement to monitor the combustion temperature of TRS gases being routed to power boilers, lime kilns and recovery furnaces.	Not applicable because in revisions to NSPS BB (1984 and 1986) EPA deleted the requirement to monitor combustion temperatures from lime kilns, power boilers and recovery furnaces. The Department agreed to waive these parts of our regulations for the facility.
40 CFR, Part 60, Subpart Da - NSPS for Electric Utility Steam Generation Units for Which Construction is Commenced after September 18, 1978	Standards for Electric Generating Units	This facility is a non-Electric Generating Unit facility.
40 CFR, Part 60, Subpart Y - Coal Preparation Plants	Applicable to coal preparation facilities processing more than 200 tons per day that commenced construction or modification after October 24, 1974. A coal preparation plant is defined at 40 CFR 50.251 (a) as any facility which prepares coal by one or more of the following processes: breaking, crushing, screening, wet or dry cleaning and thermal drying.	IP does not engage in activities that meet the definition of a coal preparation plant.
40 CFR, Part 60, Subpart HH - Lime Manufacturing Plants	Applicable to rotary lime kilns used in the manufacture of lime.	As provided in §60.340(b), the provisions of this subpart are not applicable to facilities used in the manufacture of lime at kraft pulp mills.

Citation	Brief description of requirement	Why the requirement does not apply
40 CFR Part 61 Subpart V - Equipment Leaks-Fugitive Emission Sources	This subpart is applicable to pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, flanges, and other connectors, product accumulator vessels, and control devices that operate in volatile hazardous air pollutant (VHAP) service. VHAP service is defined as equipment containing or contracting a fluid that is at least 10% a VHAP by weight.	The only current VHAPs are benzene and vinyl chloride.
40 CFR Part 63 Subpart Q - Industrial Process Cooling Towers		This standard only applies to industrial process cooling towers that are operated with chromium-based water treatment chemicals.
40 CFR Part 63 Subpart T - Halogenated Solvent Cleaners	This standard establishes emission limits, equipment specifications, and operational practices for solvent cleaning machines that use solvent containing methylene chloride, perchlorethylene, trichlorethylene, 1,1,1-trichloethane, carbon tetrachloride, or chloroform, or any combination in a total concentration greater than 5% by weight.	The parts washers on site do not use any halogenated solvents, so this subpart does not apply.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
 (9 VAC 5-80-140)

XIV. Compliance Plan

No Compliance Plan is required at this time.

XV. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the effective date of the permit. Unless the owner submits a timely and complete renewal application to the Department consistent with 9 VAC 5-80-80, the right of the facility to operate shall terminate upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal, but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied, and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
5. The protection under subsections F 1 and F 5 of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant to section 9 VAC 5-80-80 D, the applicant fails to submit, by the deadline specified in writing by the Board, any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
 - a. The date, place as defined in the permit, and time of sampling or measurements.
 - b. The date(s) analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.

- e. The results of such analyses.
- f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

- 2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)
- 3. The permittee shall submit the results of monitoring contained in any applicable requirement to the Department no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 inclusive and July 1 to December 31 inclusive.
- b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:
 - (1) Exceedance of emissions limitations or operational restrictions;
 - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
 - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

- 1. Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and the Department no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to § 114(a)(3) and § 504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with VAC 5-80-80 G, and shall include:
 - a. The time period included in the certification. The time period to be addressed is January 1 to December 31.
 - b. The identification of each term or condition of the permit that is the basis of the certification.
 - c. The compliance status.
 - d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

- e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
- f. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U. S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Department, within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. Emission units which are covered in the SSM of 40 CFR Part 63, Subpart S are not required to provide the written statement within 14 days of discovery prescribed in this paragraph. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition XV.C.3.
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Department by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. Emission units which are covered in the SSM of 40 CFR Part 63, Subpart S are not required to provide the written statement prescribed in this paragraph. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Department.

1. The emission units that have continuous monitors subject to 9 VAC 5-50-50 C are not subject to the 14-day written notification.
2. The emission unit subject to the procedures of 9 VAC 5-50-50 C is the Combustion Turbine (PWR05).
3. Each owner required to install a continuous monitoring system subject to 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable emission standard) to the board for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the following information:
 - a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B 6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;

- b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
 - c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
 - d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.
- 4. All malfunctions of emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C require written reports within 14 days of the discovery of the malfunction.
 - 5. Emission units which are covered in the SSM of 40 CFR Part 63, Subpart S are not required to provide the written statement prescribed in this paragraph.
(9 VAC 5-20-180 C and 9 VAC 5-50-50)

G. Control Equipment Maintenance

The permittee shall furnish notification to the Department of the intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown. The notification shall include, but is not limited to, the following information:

- 1. Identification of the air pollution control equipment to be taken out of service, as well as its location, and registration number;
- 2. The expected length of time that the air pollution control equipment shall be out of service;
- 3. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period;
- 4. Measures that shall be taken to minimize the length of the shutdown or to negate the effect of the outage.
(9 VAC 5-20-180 B)

H. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

I. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

J. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

K. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.

(9 VAC 5-80-110 G and L)

L. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.

(9 VAC 5-80-110 G.5)

M. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.

(9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.

(9 VAC 5-80-110 K.1)

N. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.

(9 VAC 5-80-110 H)

O. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-20 E, 9 VAC 5-50-50 and 9 VAC 5-50-90)

P. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used shall be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20)

Q. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110 J)

R. Inspection and Entry Requirements

The permittee shall allow the Department, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

S. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

T. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to the Department upon request.

(9 VAC 5-80-150 E)

U. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-160)

V. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
 - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
 - b. The permitted facility was at the time being properly operated.
 - c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
 - d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.
4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

W. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-260 and 9 VAC 5-80-190 C))

X. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

Y. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)

Z. Asbestos Requirements

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110 A)

AA. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

BB.Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

CC. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.
 (9 VAC 5-80-110 I)

XVI. NO_x Budget Trading Program Requirements

A. General Conditions

1. A review of the air emission units included in this permit approval has determined that the equipment listed in Table XIV-1 meets the definition of a NO_x Budget Unit and is subject to the NO_x Budget emission limitations under 9 VAC 5-140-40 or for opt-in sources 9 VAC 5-140-800. As required by 9 VAC 5-140-200 A, each NO_x Budget source is required to have a federally enforceable permit. This section of the document represents the NO_x Budget permit.
 (9 VAC 5-140-40)
2. The NO_x Budget permit shall be administrated by the VADEQ under the authority of 9 VAC 5-140-10 et seq.
 (9 VAC 5-140-200 A)
3. The following air emission units have been determined to meet the applicability requirements as provided in 9 VAC 5-140-40 A.1 and A.2. Units that do not meet this definition, are not defined as 25-Ton Exemption Units and are not permanently shutdown can be included in the NO_x Budget Trading program as “opt-in” air emission sources.
 (9 VAC 5-140-40 A)

Table XVI – 1 Facility NO_x Budget Units				
Facility Unit ID	Unit NATS Code	Unit Name and description	Maximum Heat Capacity (MMBtu/hr)	Maximum Generation Capacity (lbs steam/hour)
PWR 02 or 003	052152000003	#6 Power boiler - coal and wood fired boiler	496	325,000
PWR 05 or 029	052152000029	#9 Power boiler - Gas fired combustion turbine	893	425,000

4. The following equipment has met the requirements for the Retirement Exemption from the NO_x Budget Trading program (9 VAC 5-140-50). This equipment shall not emit any nitrogen oxides without prior notification to the permitting agency and modification to the operating permit.
 (9 VAC 5-140-50 C.1 and C.2 and 9 VAC 5-140-50 C.6.a and 6.b)

Table XVI – 2 NO_x Budget Retirement Exemption Units		
Facility Unit ID	EIA Code	Unit Name and description
PWR 04 or 017	052152000017	#8 Power boiler coal

B. Standard Requirements

1. Continuous Monitoring requirements.

- a. The owners and operators and, to the extent applicable, the NO_x authorized account representative of each NO_x Budget source and each NO_x Budget unit at the source shall comply with the monitoring requirements of 9 VAC 5-140-700 et seq.
(9 VAC 5-140-60 B.1)
- b. The emissions measurements recorded and reported in accordance with 9 VAC 5-140-700 et seq. (Subparts H of 40 CFR 75 and 40 CFR 97) shall be used to determine compliance by the unit with the NO_x Budget emissions limitation under Conditions XVI B.2.a through XVI.B.2.h. The following approved methods shall be used to calculate NO_x Control Period and Annual emission rates.
(9 VAC 5-140-60 B.2)

Pollutant or Stack Parameter	CEM Monitoring Methods 40 CFR 75 Appendix A and B
NO _x Concentration	Part 60 Appendix B, Performance Specification 2
CO ₂ /O ₂ /Diluent Gas	Part 60 Appendix B, Performance Specification 3
Heat rate	Part 75 Appendix F, Section 3
Moisture	Part 60 Appendix B, Performance Specification 3

2. Nitrogen oxides requirements.

- a. The owners and operators of each NO_x Budget source and each NO_x Budget unit at the source shall hold NO_x allowances available for compliance deductions under 9 VAC 5-140-540 A, B, E, or F, as of the NO_x allowance transfer deadline, in the unit's compliance account and the source's overdraft account in an amount not less than the total NO_x emissions for the control period from the unit, as determined in accordance with Chapter 140, Article 8 (9 VAC 5-140-700 et seq.), plus any amount necessary to account for actual utilization under 9 VAC 5-140-420 E for the control period or to account for excess emissions for a prior control period under 9 VAC 5-140-540 D or to account for withdrawal from the NO_x Budget Trading Program, or a change in regulatory status, of a NO_x Budget opt-in unit under 9 VAC 5-140-860 or 9 VAC 5-140-870.
(9 VAC 5-140-60 C.1)
- b. Each ton of nitrogen oxides emitted in excess of the NO_x Budget emissions limitation shall constitute a separate violation of the Clean Air Act, and applicable Virginia Air Pollution Control law.
(9 VAC 5-140-60 C.2)
- c. A NO_x Budget unit shall be subject to the requirements under 9 VAC 5-140-60 C.1 starting on the latter of May 31, 2004 or the date on which the unit commences operation.
(9 VAC 5-140-60 C.3)
- d. NO_x allowances shall be held in, deducted from, or transferred among NO_x Allowance Tracking System accounts in accordance with 9 VAC 5-140-400 et seq., 9 VAC 5-140-500 et seq., 9 VAC 5-140-600 et seq., and 9 VAC 5-140-800 et seq.
(9 VAC 5-140-60 C.4)

- e. A NO_x allowance shall not be deducted, in order to comply with the requirements under 9 VAC 5-140-60 C.1. for a control period in a year prior to the year for which the NO_x allowance was allocated.
(9 VAC 5-140-60 C.5)
 - f. A NO_x allowance allocated by the permitting authority or the administrator under the NO_x Budget Trading Program is a limited authorization to emit one ton of nitrogen oxides in accordance with the NO_x Budget Trading Program. No provision of the NO_x Budget Trading Program, the NO_x Budget permit application, the NO_x Budget permit, or an exemption under 9 VAC 5-140-50 and no provision of law shall be construed to limit the authority of the United States or the State to terminate or limit such authorization.
(9 VAC 5-140-60 C.6)
 - g. A NO_x allowance allocated by the permitting authority or the administrator under the NO_x Budget Trading Program does not constitute a property right.
(9 VAC 5-140-60 C.7)
 - h. Upon recordation by the administrator under 9 VAC 5-140-500 et seq., 9 VAC 5-140-600 et seq., or 9 VAC 5-140-800 et seq., every allocation, transfer, or deduction of a NO_x allowance to or from a NO_x Budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, any NO_x Budget permit of the NO_x Budget unit by operation of law without any further review.
(9 VAC 5-140-60 C.8)
3. Excess emissions requirements.
- a. The owners and operators of a NO_x Budget unit that has excess emissions in any control period shall:
 - (1) Surrender the NO_x allowances required for deduction under 9 VAC 5-140-540 D 1; and,
 - (2) Pay any fine, penalty, or assessment or comply with any other remedy imposed under 9 VAC 5-140-540 D 3.
- (9 VAC 5-140-60 D)

C. Recordkeeping and Reporting Requirements.

The following requirements concerning recordkeeping and reporting shall apply:

- 1. Unless otherwise provided, the owners and operators of the NO_x Budget source and each NO_x Budget unit at the source shall keep on site at the source each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the permitting authority or the administrator.
 - a. The account certificate of representation for the NO_x authorized account representative for the source and each NO_x Budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 9 VAC 5-140-130; provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a new account certificate of representation changing the NO_x authorized account representative.
 - b. All emissions monitoring information, in accordance with 9 VAC 5-140-700 et seq. of this part; provided that to the extent that 9 VAC 5-140-700 et seq. provides for a three-year period for recordkeeping, the three-year period shall apply.
 - c. Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO_x Budget Trading Program.

- d. Copies of all documents used to complete a NO_x Budget permit application and any other submission under the NO_x Budget Trading Program or to demonstrate compliance with the requirements of the NO_x Budget Trading Program.
2. The NO_x authorized account representative of a NO_x Budget source and each NO_x Budget unit at the source shall submit the reports and compliance certifications required under the NO_x Budget Trading Program, including those under 9 VAC 5-140-300 et seq., 9 VAC 5-140-700 et seq., or 9 VAC 5-140-800 et seq. (9 VAC 5-140-60 E)

D. Testing for CEM Certification

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations. (9 VAC 5-140-710)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the Department as follows:

Pollutant or Stack Parameter	CEM Certification Test Method 40 CFR 60
Opacity	USEPA Method 9
NO _x Concentration	USEPA Methods 7, 7A, 7B, 7C, 7D, 7E
CO ₂ /O ₂ / Diluent Gas	USEPA Method 3, 3A, 3B, 3C
Moisture	USEPA Method 4
Flow rate	USEPA Method 2

(9 VAC 5-140 Article 4 and Article 8)

E. Liability

1. Any person who knowingly violates any requirement or prohibition of the NO_x Budget Trading Program, a NO_x Budget permit, or an exemption under 9 VAC 5-140-50 shall be subject to enforcement pursuant to applicable State or Federal law. (9 VAC 5-140-60 F.1)
2. Any person who knowingly makes a false material statement in any record, submission, or report under the NO_x Budget Trading Program shall be subject to criminal enforcement pursuant to the applicable State or Federal law. (9 VAC 5-140-60 F.2)
3. No permit revision shall excuse any violation of the requirements of the NO_x Budget Trading Program that occurs prior to the date that the revision takes effect. (9 VAC 5-140-60 F.3)
4. Each NO_x Budget source and each NO_x Budget unit shall meet the requirements of the NO_x Budget Trading Program. (9 VAC 5-140-60 F.4)
5. Any provision of the NO_x Budget Trading Program that applies to a NO_x Budget source or the NO_x authorized account representative of a NO_x Budget source shall also apply to the owners and operators of such source and of the NO_x Budget units at the source. (9 VAC 5-140-60 F.5)

6. Any provision of the NO_x Budget Trading Program that applies to a NO_x Budget unit or the NO_x authorized account representative of a NO_x budget unit shall also apply to the owners and operators of such unit. Except with regard to the requirements applicable to units with a common stack under Article 8 (9 VAC 5-140-700 et seq.), the owners and operators and the NO_x authorized account representative of one NO_x Budget unit shall not be liable for any violation by any other NO_x Budget unit of which they are not owners or operators or the NO_x authorized account representative and that is located at a source of which they are not owners or operators or the NO_x authorized account representative.
(9 VAC 5-140-60 F.6)

F. Effect on Other Authorities

No provision of the NO_x Budget Trading Program, a NO_x Budget permit application, a NO_x Budget permit, or an exemption under 9 VAC 5-140-50 shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the NO_x authorized account representative of a NO_x Budget source or NO_x Budget unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.
(9 VAC 5-140-60 G)

XVII. State-Only Enforceable Requirements

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

1. Odor - 9 VAC 5 Chapter 40, Article 2 and 9 VAC 5 Chapter 50, Article 2.
2. State toxics rule - 9 VAC 5 Chapter 40, Article 3 and 9 VAC 5 Chapter 50, Article 3.
(9 VAC 5-80-110 N and 9 VAC 5-80-300)

XVIII. Appendix A - Subpart S Parity Equipment

Emission Unit	Emission Unit ID	Controlled Under Base Case	Controlled Under Parity	Comment
A & B Washer System				
A Washer 1	UPM03	yes	no	Under IP Franklin's alternative 40 CFR 63.443 compliance approach the emissions from this equipment will not be collected and controlled.
A Washer 2	UPM03	yes	no	
A Washer 3	UPM03	yes	no	
B Washer 1	UPM04	yes	no	
B Washer 2	UPM04	yes	no	
B Washer 3	UPM04	yes	no	
7 Low Density Storage Tank	UPM18	yes	no	
D Decker	UPM12	yes	no	
D Decker Filtrate Tank	UPM12	yes	no	
40 High Density Storage Tank	BLP06	yes	no	
C Washer system				
C Washer 2	UPM05	yes	no	Under IP Franklin's alternative 40 CFR 63.443 compliance approach the emissions from this equipment will not be collected and controlled.
C Washer 3	UPM05	yes	no	
C3 Washer Filtrate Tank	UPM05	yes	no	
E Decker	UPM13	no	no	Emissions from the E-Decker are not required to be controlled since the HAP (as MeOH) content of the shower water used on this system was tested and found to be less than the threshold specified in §63.443(a)(1)(iv)(B).
E Decker Filtrate Tank	UPM13	no	no	
D Washer System				
D Washer	UPM06	yes	yes	
D Accepts Tank	UPM06	yes	yes	
D Washer Seal (Filtrate) Tank	UPM06	yes	no	Under IP Franklin's alternative 40 CFR 63.443 compliance approach the emissions from this equipment will not be collected and controlled.
B Decker	UPM11	yes	yes	
B Decker Filtrate Tank	UPM11	yes	yes	
1 High Density Storage Tank	BLP06	yes	yes	

Emission Unit	Emission Unit ID	Controlled Under Base Case	Controlled Under Parity	Comment
Shared Washroom Sources				
Vertical Foam Tank	UPM21	yes	no	Under IP Franklin's alternative 40 CFR 63.443 compliance approach the emissions from this equipment will not be collected and controlled.
Knotters and Screens				
A Knotter	UPM14	no	no	The knotters and screens are not required to be controlled under either the base case or parity because they were tested and found to have HAP concentration below the threshold specified in §63.443(a)(1)(ii).
A Noss Screens	UPM07	no	no	
B Knotter	UPM15	no	no	
B Noss Screens	UPM08	no	no	
C Wash Line Open Knotters	UPM16	no	no	
C Wash Line Cowan Screens	UPM09	no	no	
D Wash Line Open Knotters	UPM17	no	no	
D Wash Line KMW Screens	UPM10	no	no	
E Bleach Line				
E Pressate Hold Tank	BLP04	yes	no	Under IP Franklin's alternative 40 CFR 63.443 compliance approach the emissions from this equipment will not be collected and controlled.
E O2-1 Filtrate Tank	BLP04	yes	yes	
E O2-2 Filtrate Tank	BLP04	yes	yes	
E East and West Twin Roll Press	BLP04	yes	yes	
E O2 Reactor	BLP04	yes	no	Under IP Franklin's alternative 40 CFR 63.443 compliance approach the emissions from this equipment will not be collected and controlled.
E O2 Blow Tank	BLP04	yes	yes	
E O2 Blend Chest	BLP04	yes	yes	
E O2 Pressate Level Tank	BLP04	yes	yes	
F Bleach Line				
F Pre-O2 Blend Chest	BLP05	yes	no	Under IP Franklin's alternative 40 CFR 63.443 compliance approach the emissions from this equipment will not be collected and controlled.
F O2 Reactor	BLP05	yes	no	
F Pre-O2 Pressate Tank	BLP05	yes	no	
F O2-1 Pressate Tank	BLP05	yes	no	
F O2-2 Pressate Tank	BLP05	yes	no	
F O2 Blow Tank	BLP05	yes	no	
F Pre O2, O2-1 and O2-2 Presses	BLP05	yes	no	

Emission Unit	Emission Unit ID	Controlled Under Base Case	Controlled Under Parity	Comment
Collection System Condensates				
Base Case collection system condensates		yes	no	Vents left uncontrolled will not be condensed and treated. Under parity, the BLOX tank vents shall be condensed and the condensates sent in a closed collection system for treatment in a steam stripper.
Parity case collection system condensates		no	yes	
Black Liquor Oxidation (BLOX) System				
No. 1 BLOX Tank	CRE17	no	yes	IP Franklin shall control these alternative sources that are not required to be controlled under the MACT 1, Phase 2 base case regulation
No. 2 BLOX Tank	CRE17	no	yes	
No. 3 BLOX Tank	CRE17	no	yes	
No. 4 BLOX Tank	CRE17	no	yes	

XIX. Appendix B

A. Subpart S – LVHC Gas Collection

The following sources are collected to meet the LVHC gas control requirements of 40 CFR 63.443(a)(1)(i):

1. Digester Systems
 - a. Batch Digesters Systems ID: UPM01
 - b. K1 Continuous Digester System ID: UPM02
 - c. K2 Continuous Digester System ID: UPM02
 - d. Kamyr Chip Bins for K1& K2 ID: UPM19
 - e. Pulping Process Condensate Collection Tank (BOD Tank) ID: UPM30
2. Turpentine Recovery System
 - a. Decanter Underflow Tank ID: UPM20
 - b. Decanter ID: UPM20
 - c. No.1&2 Storage tanks ID: UPM20
3. Evaporator System
 - a. D Set Evaporator & Hotwell ID: CRE07
 - b. E Set Evaporator & Hotwell ID: CRE08
 - c. F Set Evaporator & Hotwell ID: CRE09
 - d. G Set Evaporator & Condensate Tank ID: CRE10
 - e. Condensate Stripper and Feed Tank ID: CRE16
4. LVHC Collection System (Condensate Drains)
 - a. NCG Collection System Drains ID: CRE18
 - (1) G Set Low Pressure Condensate Tank
 - (2) T-1 Condensate Tank
 - (3) T-2 Condensate Tank
 - b. Stripper Off Gas System Drains ID: CRE19
 - (1) No. 1 Condensate Pot
 - (2) No. 2 Condensate Pot
 - (3) No. 3 Condensate Pot

B. Subpart S – LVHC Condensate Streams Collected

The following condensate streams are collected to meet the collection requirement of at least 65% of total HAP mass available from regulated equipment systems plus the LVHC collection system condensate drains consistent with the requirements of 40 CFR 63.446(c)(2):

1. Digester System
 - a. Blow Heat Accumulator Primary Condenser ID: UPM01
 - b. Blow Heat Accumulator Secondary Condenser ID: UPM01
 - c. Kamyr Condensers From K1 And K2 Digester ID: UPM02
 - d. Kamyr Chip Bin Separator Condenser (K1, K2) ID: UPM19
2. Turpentine Recovery System
 - a. Decanter Underflow ID: UPM20
3. Evaporator System
 - a. D-Set Evaporator Hotwell ID: CRE07
 - b. E-Set Evaporator Hotwell ID: CRE08
 - c. F-Set Evaporator Hotwell ID: CRE09
 - d. G Set Foul Condensate Tank ID: CRE10
4. LVHC Collection System (condensate drains)
 - a. NCG Collection System ID: CRE18
 - (1) G Set low pressure condensate tank
 - (2) T-1 condensate tank
 - (3) T-2 condensate tank
 - b. Stripper off gas system ID: CRE19
 - (1) No. 1 condensate pot
 - (2) No. 2 condensate pot
 - (3) No. 3 condensate pot